THE POLITICS OF COERCION:

TOWARD A THEORY OF COERCIVE AIRPOWER FOR POST-

COLD WAR CONFLICT

BY

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ABSTRACT

The focus of this thesis is the following research question: What does coercion theory suggest about the use of airpower in post-Cold War conflict? This thesis aims to determine if any of the existing theories of coercion, namely punishment, risk, decapitation, and denial, can stand alone as an adequately coherent, substantive, and codified approach. Three important attributes of conflict in the post-Cold War era, (1) limited, non-protracted war, (2) political restraint, and (3) the importance of the better state of peace, provide a framework for this analysis. If these existing constructs fail the test, the study will investigate the potential content and applicability of a new theory for post-Cold War coercive airpower.

The interwar airpower theories of Giulio Douhet and the American airmen at the Air Corps Tactical School (ACTS), both based to a large extent on the concept of punishment, were couched in an assumption of total war and have accordingly proven largely incompatible with the context of post-Cold War conflict. Thomas Schelling offered in risk-based coercion theory an alternative that, at first glance, seemed to avoid the pitfalls of punishment as a stand-alone approach to limited war. While risk is not without its own shortfalls in the context of post-Cold War conflict, it was a vast improvement over its total-war predecessor. The baggage of Vietnam, however, left its potential applicability to modern war largely unexplored. John Warden's decapitation-based approach, designed as a conceptual antithesis of risk, suffered from many of the same problems that plagued his predecessors. Conversely, Robert Pape's denial theory filled many of the gaps left by the other three methods of coercion and was, in fact, far more compatible with the three specific attributes of conflict in the post-Cold War era. Because of some weaknesses in Pape's approach, though, his theory of coercion could not stand alone as a sufficiently coherent and substantive approach to modern war.

The limitations of all four constructs, then, point to the need for an approach designed to more adequately meet the specific needs of post-Cold War conflict.

Fortunately, though, there is in each of these existing concepts much that informs the content of a new theory of coercive airpower. Accordingly, this thesis recommends a three-phase hybrid approach to coercion that optimizes the strengths and minimizes the weaknesses of the four other theories. Aspects of this coercion hybrid are prevalent in three post-Cold War conflicts, Operation Desert Storm, Operation Deliberate Force, and Operation Allied Force. In fact, the new approach provides the 21st Century airman with a well-constructed theory of coercive airpower specifically designed for the unsettled landscape of the post-Cold War era.

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Chapter 1

Introduction

> *We must continue to seek new, revolutionary, and imaginative ways to employ air and space power and continue to provide the United States with even more capability to pursue national and military objectives with reduced risk and cost in casualties, resources, and commitment.*
>
> *Air Force Doctrine Document 1*

Since the two world wars, there has been for the United States a very clear shift from the total wars in the first half of the 20th Century to the limited wars that followed. The final decade of the last century indicated a similar move from familiar Cold War conflicts to the very different conflicts of the post-Cold War era. There has been no such shift in American airpower theory and doctrine. Current airpower theoretical and doctrinal thought is still controlled by a Cold War mindset and is rooted in total war assumptions dating from the pre-World War II period. The US airpower community must remain prepared to fight conflicts approaching total war and cannot wholly discount the possibility of nuclear war. Regrettably, though, traditional preoccupation with such wars has left airmen doctrinally ill-prepared for the limited post-Cold War conflicts that likely await America in the 21st Century.

In light of this problem, the focus of this thesis is the following research question: What does coercion theory suggest about the use of airpower in post-Cold War conflict? This thesis aims to determine if any of the existing theories of coercion can stand alone as an adequately coherent, substantive, and codified approach. If analysis reveals that existing constructs fail the test, the study will investigate the potential content and applicability of a new theory for post-Cold War coercive airpower.

The thesis is divided into eight chapters. After a foundational discussion of theory, coercion, and airpower, the current chapter will develop attributes of post-Cold War conflict. Chapter Two will use these characteristics to analyze the compatibility of the existing models of coercive airpower. Chapter Three will develop an airpower theory better suited to the limited conflicts of the post-Cold War era. Chapter Four will test that theory's applicability in three US post-Cold War conflicts: Operation Desert Storm, Operation Deliberate Force, and Operation

Allied Force. The final chapter will explore the implications and considerations related to the findings embodied elsewhere in the thesis.

What is a Theory of Coercive Airpower?

Prior to embarking on such a task, several definitions and assumptions must first be discussed. The purpose of this section is to clarify at the outset what is meant by a *theory of coercive airpower*. Theory, coercion, and airpower will each be analyzed separately with the goal of setting a steady course for the remainder of the thesis.

A Theory of Coercive Airpower

The ultimate goal of this thesis is to arrive at a *theory* of coercive airpower for the post-Cold War era. In *Military Strategy: A General Theory of Power Control*, Joseph Wylie defined theory as "an idea, a scheme, a pattern of relationships designed to account for events that have already happened with the expectation that this pattern will allow us to predict or foresee what will come to pass when comparable events take place in the future."[1] Theory, then, is informed by past experience with the goal of accurately guiding future experience. However, Carl von Clausewitz's caution about the limitations of theory is especially pertinent:

> Theory exists so that one need not start afresh each time sorting out the material and plowing through it, but will find it ready to hand and in good order. It is meant to educate the mind of the future commander, or, more accurately, to guide him in his self-education, *not to accompany him to the battlefield*; just as a wise teacher guides and stimulates a young man's intellectual development, but is careful not to lead him by the hand for the rest of his life.[2]

A Theory of Coercive Airpower

This thesis is primarily concerned with *coercion* in war. A basic assumption in the pages that follow is that airpower is used to change an adversary's behavior in line with Clausewitz's dictum that war is fundamentally "an act of force to compel our enemy to do our will."[3] Additionally, it is important to note the distinction between coercion and pure destruction or *brute force*. Where brute force aims to completely destroy the enemy's capability to resist,

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[1] Joseph Wylie, *Military Strategy: A General Theory of Power Control* (Annapolis, Maryland: Naval Institute Press, 1989), 96.
[2] Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1976), 141, emphasis added.
[3] Clausewitz, 75.

coercion hopes to persuade him before the destruction is complete. The two concepts are not, however, mutually exclusive. A nation can in fact coerce in a manner that closely resembles brute force, so long as the goal is to change the adversary's behavior rather than to simply destroy him.

Furthermore, this thesis discusses coercion *in war* and not the concept of *coercive diplomacy*. Where coercive diplomacy is the "use of a threat of punishment and/or limited force short of full-scale military operations," *coercion* in this thesis is the application of that threatened force in the context of an actual war.[4] Coercive diplomacy is, at its core, political where coercion is fundamentally military in nature. Likewise, the emphasis in this study is on fighting wars, not deterring them. In *Arms and Influence*, Thomas C. Schelling divided *coercion* into the two separate concepts of *deterrence* and *compellence*.[5] While his term *compellence* closely approximated the meaning of *coercion* as it appears in this thesis, much of his theory was committed to the deterrent element of coercion. It is true, as Schelling postulated, that a good part of coercion is avoiding war. The theory of coercion in this thesis, however, aims to assist the warfighter in the event that deterrence fails.

A Theory of Coercive Airpower

Simply stated, the focus of this study is *airpower*. There are three aspects of the term *airpower* as it appears in this theory that should be explored. First, as RAND analyst Ben Lambeth appropriately attested in *The Transformation of American Air Power*, "air power, properly understood, knows no color of uniform."[6] As such, the concept of airpower in the pages that follow connotes the vital contributions *all* services make to the joint air effort.

Second, this thesis speaks of airpower operating separately from America's surface forces. While quite important, combined arms operations featuring airpower in close coordination with the land and maritime components are not discussed in the pages that follow. In the three post-Cold War conflicts discussed in this thesis—Desert Storm, Deliberate Force,

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[4] Peter V. Jakobsen, "The Strategy of Coercive Diplomacy: Refining Existing Theory to Post-Cold War Realities," in *Strategic Coercion: Concepts and Cases,* ed. Lawrence Freedman (New York, N.Y.: Oxford University Press, 1998), 64.
[5] Thomas C. Schelling, *Arms and Influence* (New Haven, Conn.: Yale University Press, 1966), 70-72.
[6] Benjamin S. Lambeth, *The Transformation of American Airpower* (Ithaca, N. Y.: Cornell University Press, 2000), 10.

and Allied Force, there have been varying degrees of surface action consonant with air operations. The Gulf War, for example, featured over 500,000 US and Coalition ground troops. Airpower did, however, operate independently for 39 days before the ground war began. During Deliberate Force, the US military had minimal surface forces in theater but a fairly sizable number from other countries were involved on the ground. In Allied Force, the North Atlantic Treaty Organization (NATO) did not employ ground forces, but the Kosovo Liberation Army (KLA) did have some "friendly" troops in action. In a future war, then, the United States may use ground forces in conjunction with the air war, subsequent to it, or not at all. The theory espoused herein, while applicable to each scenario, will not address airpower in direct support of such surface action.

Third, Col Phillip S. Meilinger proposed that "in essence, airpower is targeting; targeting is intelligence; and intelligence is analyzing the effects of air operations."[7] On the practical level, it is fair, as Meilinger suggested, to reduce airpower to targets and their effects, with intelligence as the intervening variable. "Indeed, a skeptic could argue that a history of air strategy is a history of the search for the single, perfect target."[8] Recently, however, theorists have rightly begun to look beyond this traditional target-centric view to a more conceptual plane where political aims and desired effects are achieved without simply "killing people and breaking things." While their cause is noble and worthy of further exploration, it is for the most part beyond the scope of this thesis. Instead, in the text that follows, political objectives and military effects are met quite simply by attacking targets on the ground with weapons from the air. As will become evident, though, the same considerations about the political realities of modern war that drive these recent theoretical musings are prevalent throughout this thesis and weigh heavily upon the new theory for post-Cold War conflict.

The Attributes of Post-Cold War Conflict

Clausewitz observed that, in the history of war, "every age had its own kind of war, its own limiting conditions, and its own peculiar preconceptions."[9] The end of the Cold War accordingly marked the coming of a new age. Three important attributes characterize conflict in

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[7] Col Phillip S. Meilinger, "Ten Propositions Regarding Airpower, *Airpower Journal* X, no. 1 (Spring 1996): 58.
[8] Meilinger, 58-59.

this post-Cold War era: (1) limited, non-protracted war, (2) political restraint, and (3) the importance of the better state of peace.

First, America's wars in the last decade of the 20th Century have been limited in both their aim and scope. Bearing no resemblance to total or nuclear war, these conflicts have instead been decidedly limited and conventional in nature. Additionally, the US post-Cold War conflicts have been brief—measured in days and weeks rather than in months and years.[10] Desert Storm, for example, was a 43-day war. Deliberate Force was only 16 days long, and featured a five-day bombing pause. The longest US war since the end of the Cold War, the air war over Serbia, lasted only 78 days. None of this is meant to suggest that the next war will be a short war. It does, however, suggest that an airpower theory for the post-Cold War era must not rest on an inappropriate assumption of protracted war.

The second pertinent attribute of post-Cold War conflict is its politically restrained nature. While these wars have featured differing levels of political restraint, such restrictions on military operations have been quite prevalent in each. As Jack Snyder explained, *un*restrained operations are "least likely . . . in the case of limited or defensive wars, where the whole point of fighting is to negotiate a diplomatic solution."[11] While political limits have been evident in all of America's limited wars, they have been part and parcel of such conflicts in the last decade of the 20th Century. In a RAND report prepared for the US Air Force, Stephen T. Hosmer concluded that the trend will continue: "U.S. concern to minimize civilian casualties and other collateral damage has increased over time and will probably constrain severely both the methods and targets of air attacks in future conflicts."[12] In sum, post-Cold War conflict, has been—and arguably will continue to be—limited, non-protracted war that is, by its very nature, politically restrained.

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[9] Clausewitz, 585.

[10] The air exclusion "no-fly" zones that have followed these conflicts have been quite protracted. They are very important military operations but are not considered in this text to be part of the war that preceded them. Likewise, these operations deserve serious consideration but are not discussed in the pages that follow.

[11] Jack Snyder, "Civil Military Relations and the Cult of the Offensive, 1914 and 1984," *International Security* 9, no. 1 (Summer 1984): 121.

[12] Steven T. Hosmer, *Psychological Effects of U.S. Air Operations in Four Wars, 1941-1991* (Santa Monica, Calif.: RAND, 1996), xx.

Third, the limited nature of post-Cold War conflict highlights the salience of the better state of peace. A clear vision of the desired end state is important in all wars and crucial in post-Cold War conflict. As a baseline for discussion, B. H. Liddell Hart established its significance in any war: "The object in war is a better state of peace—even if only from your own point of view. Hence it is essential to conduct war with constant regard to the peace you desire."[13] In a total war that ends with a brute force victory and an unconditional surrender, such as the world wars of Liddell Hart's time, the victor can impose whatever peace he desires. However, the coercing nation in a limited war has no such option after the fact. Consequently, the better state of peace must be integrated into the war effort itself. Michael Howard captured this idea in a 1988 Harmon Lecture at the US Air Force Academy: "In making war, in short, it is necessary constantly to be thinking how to make peace. The two activities can never properly be separated."[14] Later, Howard narrowed his focus to war in the modern era: "In a more real sense than ever before, one is making war and peace simultaneously." A clear conception of the peace one desires, then, is more difficult and consequently more important in the post-Cold War era than ever before. In summary, a post-Cold War conflict is a limited, non-protracted war that features appreciable levels of political restraint and demands an increased emphasis on the better state of peace.

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[13] B. H. Liddell Hart, *Strategy* (New York, N.Y.: Praeger Publishers, Inc., 1967), 338.
[14] Michael Howard, "Strategy and Policy in Twentieth-Century Warfare," in *The Harmon Memorial Lectures in Military History, 1959-1987,* ed. Lt Col Harry R. Borowski (Washington D.C.: Office of Air Force History, 1988), 354.

Chapter 2

COERCION THEORY AND THE POST-COLD WAR ERA

There are now better ways of thinking about air power and its potential as a tool of strategy than by seeking guidance from the now-antiquarian writings of the early-20th-century air power classicists.

Ben Lambeth

In general terms, the major existing coercion theories can be grouped into four separate categories: punishment, risk, decapitation, and denial. Punishment as a theory of coercive airpower draws its roots from the interwar period. Risk-based coercion came later and is normally attributed to the writings of Thomas Schelling. John Warden espoused the more contemporary decapitation theory and recent denial-based coercion is most often associated with Robert Pape. While there is value in each approach, the utility of any single one as a stand-alone theory for the conduct of post-Cold War conflict is in question.

Punishment-Based Coercion: A Theory for Total War

The first substantive theories of coercive airpower surfaced during the period between the First and Second World Wars. Two of the most prevalent interwar theories of coercion were espoused by Italian airpower advocate Giulio Douhet and the American airmen at the Air Corps Tactical School (ACTS). Both approaches were based to a large extent on the concept of punishment. It should be noted at the outset that these early airpower pioneers developed these constructs in the aftermath of one total war and in preparation for the next. As such, both were couched in a clear and unambiguous assumption of total war and have proven largely incompatible with the context of post-Cold War conflict.

Giulio Douhet

In the 1920s, Giulio Douhet proposed in *The Command of the Air* a theory of airpower that most closely approximated punishment in its purest form. Pure

punishment, as per Douhet's approach, aimed to coerce an adversary to change his behavior by shattering civilian morale with direct attacks on the enemy's urban areas and population centers. Dr. Karl Mueller defined punishment in more general terms as "the use of force to change the adversary's policy without affecting its abilities."[1] At the opposing end of the coercion continuum is the concept of denial, which attacks the adversary's capability to resist, normally by directly targeting his armed forces. While denial looks to targets of a military nature, punishment-based coercion almost exclusively attacks civilian sites.

By targeting the enemy's cities with highly destructive bombs, Douhet hoped a fearful, demoralized population would either demand capitulation or revolt against their own obstinate government. He arrived at a total-war approach that was controversial in his own time and obviously incompatible with the politically restrained nature of limited war in the modern era. Ironically, if US leaders targeted civilians today in the manner Douhet suggested, they would be far more likely to spark an uprising the United States than in the population being attacked. Not surprisingly, Stephen T. Hosmer concluded that "in future conflicts, humanitarian considerations are likely to prohibit even limited direct attacks on civilian populations."[2]

However, when Mark Conversino boldly asserted that "Douhet is dead, literally and figuratively," he overstated the point.[3] While much of his theory is now passe, Douhet's concept of "command of the air" is very much alive in contemporary airpower theory. Interestingly, command of the air added an important element of denial to a coercion theory otherwise dominated by punishment. For Douhet, bombing enemy airfields was a prerequisite to bombing cities: "I have always maintained that the essential purpose of an Air Force is to conquer the command of the air by first wiping out the enemy's air forces. This, then, would seem to be always the first objective of an

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[1] Karl Mueller, "Coercion and Air Power: A Primer for the Military Strategist," lecture, Royal Netherlands Air Force Airpower Colloquium 2000, Netherlands Defence College, Rijswijk, Holland, 6 June 2000, 4.
[2] Stephen T. Hosmer, *Psychological Effects of U.S. Air Operations in Four Wars, 1941-1991: Lessons for U.S. Commanders* (Santa Monica, Calif.: RAND, 1996), xxii-xxiii.
[3] Mark J. Conversino, "The Changed Nature of Strategic Air Attack," *Parameters*, Winter 1997-1998, 31.

Independent Air Force."[4] There was, however, no semblance of denial beyond this air superiority campaign. In fact, Douhet, who allowed for only bombardment, pursuit and reconnaissance aircraft, labeled missions not directly associated with strategic bombing as "auxiliary aviation" and viewed them as "worthless, superfluous, harmful."[5] In short, Douhet's style of coercion clearly had no place for the denial-based targeting of fielded forces.

In Douhet's approach, success was clearly dependent on the coercing nation's capacity to bomb the enemy with massive, overwhelming, and terrifying force. In his time, though, technology restricted the attainment of that goal. The bomber was by no means as survivable as he had hoped his "battleplane" would be. Nor did the destructive capacity of the conventional bombs of the age meet his expectations. Consequently, his "independent air force" could not pack the punch that Douhet himself felt necessary for airpower to be decisive. The advent of stealth, precision-guided munitions, and sophisticated air defense suppression capabilities, however, has largely removed the technological limitations. Interestingly, modern technology also enables airpower to coerce an adversary in more politically palatable ways that Douhet did not envision.

The Air Corps Tactical School

In the 1930s, US airmen at the Air Corps Tactical School (ACTS) developed an alternative to Douhet's approach—the industrial web theory. Also a punishment-based coercive strategy, this approach opted to attack the population *indirectly* by targeting the critical nodes of the adversary's industrial infrastructure. The goal of this economic warfare was a collapse of the enemy's economic system and ultimately of the civil society as a whole. Such a strategy would presumably break civilian morale, convincing the adversary's government to surrender as a result.

As with Douhet, the industrial web theory made no provision for directly attacking the enemy's fielded forces. There was, however, a sizable element of denial in the ACTS strategy based on the assumption that the destruction of carefully selected economic targets would significantly decrease the enemy's warmaking capability and

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[4] Giulio Douhet, *The Command of the Air* (Washington, D.C.: US Government Printing Office, 1998), 50-51.
[5] Douhet, 100.

reduce the effectiveness of the civilian workforce. Consequently, if the industrial web theory failed to coerce the adversary to surrender, ACTS strategists postulated it would at the very least make a contribution to a brute force victory. In a 1939 lecture at the Air Corps Tactical School, Maj Muir S. Fairchild lauded both the denial and punishment aspects of the approach: "This method of attack had the great virtue of reducing the capacity for war of the hostile nation, and of applying pressure to the population both at the same time and with equal efficiency and effectiveness."[6] Although less morally repugnant than Douhet, the massive bombing of economic and infrastructure targets in accordance with the ACTS theory brings the coercing nation's morality into question. Lt Gen Ira Eaker expressed this concern in a January 1945 letter to Lt Gen Carl Spaatz: "We should never allow the history of this war to convict us of throwing the strategic bomber at the man in the street."[7] While Douhet advocated precisely that, the industrial web theory and the context of total war eventually led to the same result.

Punishment-Based Coercion and Post-Cold War Conflict

Punishment as a stand-alone theory of coercive airpower is largely incompatible with the conflicts of the post-Cold War era. There were several assumptions in the years prior to World War II that were perhaps appropriate in their own time but clearly have no application today. First, the theorists who advocated punishment-based coercion clearly assumed a total war. Second, they believed the war would be absent any prohibitive levels of political restraint. Third, the total-war requirement for unconditional surrender would allow the victor to dictate the terms of peace. These assumptions led to a punishment-based coercion theory incompatible with the three attributes of post-Cold War conflict: limited, non-protracted war, political restraint, and the increased importance of the better state of peace.

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[6] Maj Muir S. Fairchild, "National Economic Structure," lecture AF-9 & 10-C, Air Corps Tactical School (ACTS), Maxwell Air Force Base, Ala., 5 April 1939, AFHRA, file no. 248.2021A-7.

[7] Lt Gen Ira C. Eaker, Commanding General, Mediterranean Allied Air Forces, to Lt Gen Carl Spaatz, Commanding General, US Strategic Air Forces, letter, subject: Operation Clarion, 1 January 1945, papers of Carl A. Spaatz, box 20, Manuscript Division, Library of Congress.

The fundamental precondition for attacking the economic infrastructure of the enemy nation—that the war is total—clearly does not exist in the context of limited war. The interwar theorists reasoned that, if the entire nation was at war, then, in essence, all targets were military targets. Douhet took the logic a step further by positing that there were in fact no noncombatants in a total war.[8] These assumptions, questionable in their own time, clearly do not apply to the *un*total wars of today.

For punishment-based economic warfare to succeed, the war must be far more protracted than US conflicts since the end of the Cold War have been. As Robert Pape points out in *Bombing to Win*, "although bombing economic structures can weaken an opponent's military capabilities in long wars, the first effects are generally felt by civilians."[9] The limited conflicts of the post-Cold War era are clearly not the kind of lengthy wars required for economic exhaustion to take effect. In *The Power of Nations*, Klaus Knorr furthered Pape's basic argument:

> Notwithstanding the large-scale practice of economic warfare by economic measures in World Wars I and II, its utility in the future is uncertain, but in all likelihood, it is slim if not nil . . . economic warfare makes sense only in the event of a protracted war of attrition. Economic warfare is a game of big powers waging prolonged war against big powers.[10]

Consequently, economic warfare patterned after the industrial web theory would not initially be appropriate in a post-Cold War conflict. It may become appropriate, however, in the event that the conflict experiences fundamental change and becomes a more protracted war.

Pape's observation also highlighted the second disconnect between punishment and post-Cold War conflict—its incompatibility with political restraint. Even if a punishment-based targeting strategy is having the desired effect, it is normally more damaging to civilians than to their military counterparts. Douhet's desire to directly bomb population centers is, of course, clearly out of the question. Although a somewhat more subtle approach, the expressed intent of economic targeting—the suffering and

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[8] Douhet, 5-6.

[9] Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (Ithaca: Cornell University Press, 1996), 68.

[10] Klaus Knorr, *The Power of Nations: The Political Economy of International Relations* (New York, N.Y.: Basic Books, Inc., Publishers), 141.

privation of civilian populations—is also foreign to the politically restrained nature of post-Cold War conflict. While civilians are presumably not attacked directly by an economic warfare strategy, targeting a society's economic infrastructure may *indirectly* lead to large numbers of civilian deaths. For example, coalition air attacks on Iraq's electrical power grid during the Gulf War led to contamination of the water supply and a subsequent cholera outbreak which killed an estimated 111,000 Iraqi citizens. In fact, one Massachusetts Institute of Technology analyst contends that "poor health caused by infrastructure damage killed thirty times more civilians than did direct war effects."[11] Conrad Crane captured the fundamental disconnect between a total-war punishment theory and the political context of limited war:

> The same destructive power that makes airpower an effective military tool by punishing them [the enemy] for transgressions, can also make its use unpalatable to nations suspicious of American power or sensitive to civilian suffering. The military and political utility of the application of airpower must always be balanced against its diplomatic repercussions and the way its results will be perceived by world opinion.[12]

Add to this the effects of accidental bombing. Experience has clearly shown that even the careful bombing of infrastructure targets in close proximity to urban areas inevitably results in civilian casualties and collateral damage. While economic warfare may become permissible when other coercive tools miss the mark, it is highly unlikely that civilian policymakers will allow the implementation of a punishment strategy at the initial outbreak of a politically restrained war.

Third, beyond its incompatibility with political restraint, punishment-based coercion is equally at odds with the desired post-war environment that frequently accompanies post-Cold War conflict. What is often most favorable in the aftermath of a limited war is the minimal destruction of civilian targets paired with a severe degradation of the enemy's armed forces. Liddell Hart called for "the least possible permanent injury,

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[11] Beth Osborne Daponte, "Iraqi Casualties from the Gulf War and Its Aftermath" (Cambridge, Mass.: Defense & Arms Control Studies Program, Center for International Studies, Massachusetts Institute of Technology), 1; see also "Tactical Bombing of Iraqi Forces Outstripped Value of Strategic Hits, Analyst Contends," *Aviation Week and Space Technology* 136, no. 4 (27 January 1992), 63.

[12] Conrad Crane, *American Airpower Strategy in Korea, 1950-1953* (Lawrence, Kansas: University Press of Kansas, 1993), 184.

for the enemy of to-day is the customer of the morrow and the ally of the future."[13] Accordingly, a coercive strategy should limit the adversary's capacity to threaten his neighbors in the future while allowing his socioeconomic system to return to a relatively normal state in a fairly expeditious manner.

The downfall of punishment-based coercion is that it fails on both counts. Put simply, the theory aims to destroy the enemy's society in order to save it. Liddell Hart cited "the extremely detrimental effect of industrial bombing on the post-war situation. Beyond the immense scale of devastation, hard to repair, are the less obvious but probably more lasting social and moral effects."[14] Furthermore, while wrecking the civil infrastructure, punishment leaves the enemy's military strength largely intact. As Karl Mueller observed, "pure punishment strategies do nothing to help the coercer if coercion fails."[15] The belligerent's armed forces, then, can continue to resist during the current conflict and remain a viable threat in the future.

Risk-Based Coercion: A Theory for *Un*total War

The assumption of total war that preceded the Second World War persisted in its aftermath. The advent of nuclear weapons and the coming of the Cold War fit nicely into this preexisting mindset. In spite of the lessons of the limited war in Korea, total war, with its new nuclear dimension, remained uppermost in the minds of most US strategists and policymakers during the 1950s. The Air Force recognized the possibility of limited war but was reluctant to make any appreciable shift in emphasis. The 1959 version of Air Force Manual 1-2 submitted that "the best preparation for limited war is proper preparation for general war."[16] But the two were not the same. On the contrary, in a 1957 RAND report, Robert Johnson postulated a vitally important distinction: "It seems clear to many operators and students of the problem that the targeting system and the target selection and priority criteria which apply to general war may not apply to limited

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[13] B. H. Liddell Hart, *Strategy* (New York, N.Y.: Praeger Publishers, Inc., 1967), 351.
[14] Liddell Hart, 349.
[15] Mueller, 9.
[16] Air Force Manual (AFM) 1-2, *United States Air Force Basic Doctrine*, 1 December 1959, 4.

war."[17] He argued that a "conscientious following of certain underlying assumptions and certain clear policies as to priority of mission" stood in the way of the service's preparedness for future limited wars. "Honest recognition that this is the case, however, is required before a reasonable approach to the small war problem can be made."[18]

While the Air Force remained preoccupied with total war, the academic community began searching for theories of coercion more compatible with the more likely limited conflicts. In *Arms and Influence*, Thomas Schelling offered a conceptual alternative to punishment that, at first glance, seemed to avoid the pitfalls of punishment as a stand-alone coercion approach to limited war. A closer look at Schelling's risk-based coercion theory, however, revealed some of its own shortfalls in the context of post-Cold War conflict. In fact, the practical experience of America's war in Vietnam showed how ugly risk theory could get when misapplied.

The Good

Schelling aimed to coerce an adversary by holding what the enemy valued at risk, not by bombing it in wholesale fashion. Threatening the massive use of force would presumably obviate the need to actually use it: "Coercion depends more on the threat of what is yet to come than on damage already done."[19] While punishment used a significant level of military force at the outset of hostilities, risk used only the minimum force required to instill in the adversary a fear of future attacks and thus compel him to comply. Consequently, risk-based coercion was more compatible with post-Cold War conflict because, in an ideal case, the use of only minimal military force would significantly reduce the chance of civilian casualties, collateral damage, and the loss of public support. If risk was successful, the targets that most worried the politicians would not be attacked. Mueller submitted that "a risk strategy is simply a gradual, escalating punishment strategy, in which the coercer seeks to instill great fear of future civilian

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[17] Robert B. Johnson, "RAND Studies of Air Power in Limited Wars," Special Information Memorandum No. 7, Headquarters, Far East Air Forces, 21 May 1957, AFHRA, file no. K720.3102-7, 6.
[18] Johnson, 5.
[19] Thomas C. Schelling, *Arms and Influence* (New Haven, Conn.: Yale University Press, 1966), 172.

punishment without actually having to inflict extensive damage."[20] Accordingly, a successful risk-based approach would favorably shape the post-war environment by avoiding the wanton destruction to the enemy's economic infrastructure and population centers.

The Bad

Unfortunately, if risk failed to coerce before the bombing began, the coercing nation had to make good on its threats, often choosing to attack the same targets—with the same unfavorable effects—as a punishment strategy. Consequently, risk in practice could invite the same friction found between punishment and political restraint. If the coercer determined the adversary placed the greatest value in his economic strength, then their vision of the desired end state came into question as well. When the adversary chose to resist this threat of military force, the coercing nation following Schelling's formula would likely begin the punitive bombardment of the enemy's civil infrastructure. The same concept that at first shielded the society from extensive damage would later invite destruction if initially unsuccessful.   To his credit, Schelling correctly assessed that "pain and shock, loss and grief, privation and horror are always in some degree, sometimes in terrible degree, among the results of warfare; but in traditional military science they are incidental, they are not the object."[21] By threatening such consequences, Schelling hoped they would not become necessary. Unfortunately, the real object of that warfare—the better state of peace—would suffer egregiously if those threats became reality.

Against an enemy that valued economic power, Schelling's countervalue construct could lead to an unfortunate preoccupation with punishment-based targets. In this case, risk as a stand-alone coercive strategy would wholly miss the wartime opportunity to reduce the enemy's military capacity to act unfavorably in the future, even if successful as a coercive tool. Additionally, such an approach would make no contribution to a brute force victory in the event that risk failed to coerce an obstinate foe.

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[20] Karl Mueller, "Denial, Punishment, and the Future of Air Power," *Security Studies* 7, no. 3 (Spring 1998): 189.
[21] Schelling, 2.

Schelling assessed that "the hurting does no good directly; it can work only indirectly."[22] On the contrary, the hurting, if directed at military targets, does plenty of good. It degrades the adversary's future capacity to threaten his neighbors and moves the coercing nation one step closer to a brute force victory.

It should be noted, however, that Schelling did allow for the possibility that an adversary would in fact value his armed forces rather than his economic strength. In this case, Schelling's approach would aim to coerce the enemy by attacking his military strength in a more direct fashion. Such a strategy would be far more in line with the politically-restrained nature of post-Cold War conflict than the punishment-centric alternative. It would also favorably reduce the long-term damage to the adversary's economic base. However, Schelling recommended the same risk-based gradualist approach against these military target sets. In the context of non-protracted conflict, such incremental targeting of the enemy's fielded forces would not likely bring about a sufficiently significant reduction in his future offensive capacity. Nor would it sufficiently enable a brute-force victory if risk-based coercion failed.

The Ugly: The Practical Experience of Vietnam

Most would argue that Schelling's construct failed when put to the test in Southeast Asia. Vietnam, however, was not as much a failure of the concept as it was the misapplication of risk-based coercion theory. While the Johnson Administration hoped to follow Schelling's guidelines, gradualism in practice bore little resemblance to risk on paper. In fact, it may not have been Schelling's gradual escalation at all but instead the President's pattern of escalation and *de*-escalation that led to the failure of the Rolling Thunder campaign. Schelling's concept called for a methodical and continual increase in pressure; Johnson would turn that pressure on only to turn it off again. Where risk theory required the adversary to believe the threat was real, it is somewhat safe to postulate that Johnson's threat of escalation was less than fully credible. As a result, the North Vietnamese believed their patience would prevail over any short-lived semblance of US resolve.

Contrary to Johnson's failed approach, Schelling's ideal coercive approach was

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[22] Schelling, 172.

one that, once initiated, causes minimal harm if compliance is forthcoming and great harm if compliance is not forthcoming, is consistent with the time schedule of feasible compliance, is beyond recall once initiated, and cannot be stopped by the party that started it but *automatically* stops upon compliance, with all this fully understood by the adversary.[23]

Conversely, there was no credible, consistent threat of "great harm" throughout the Rolling Thunder campaign and even the limited action President Johnson did allow was reversed each time it was implemented. While these ideal conditions are admittedly quite difficult to fulfill in practice, the Johnson Administration's effort to apply risk theory to the war in Vietnam clearly fell well short of the mark.

By way of comparison, President Nixon's Linebacker campaign was markedly different. Linebacker also followed an incremental pattern in line with the concept of risk, but the intensity continued to increase with little hope of de-escalation. Contrary to Johnson, Nixon's style of gradualism closely approximated Schelling's theory. It is interesting to note that the operation started with Linebacker I, which attacked military targets and held North Vietnam's capital at risk. Linebacker II's massive attacks on Hanoi, when they came, showed Nixon's threat of escalation to be as painful as it was credible. While US objectives in 1972 were admittedly less ambitious than in 1968, risk seemed more appropriate when properly applied. It would be inappropriate, then, to blame the US failure in Vietnam as a whole solely on the escalatory aspect of risk theory.[24]

Even with its drawbacks, risk was a vast improvement over the punishment-based coercion theory born in the midst of total war. In stark contrast, Schelling's theory was far more compatible with the politically restrained nature of past and present untotal wars. The baggage of Vietnam, however, left the potential applicability of risk-based coercion to modern war largely unexplored.

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[23] Schelling, 89.

[24] See Wayne Thompson, *To Hanoi and Back: The U.S. Air Force and North Vietnam, 1966-1973* (Washington D.C.: Smithsonian Institute Press, 2000), 276-279 and Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (New York, N.Y.: The Free Press, 1989), 163-164, 194-202.

Decapitation-Based Coercion: Echoes of the Past

Airpower advocates such as John Warden have traditionally held risk theory and the related concept of gradual escalation in deep contempt.[25] Consequently, Warden searched the lessons of past wars for a contemporary alternative to Schelling's approach. His decapitation-based coercion theory aimed to paralyze and incapacitate the enemy by destroying the maximum number of political leadership, communication, and selected economic targets in the minimum amount of time. According to Warden, the relentless shock, surprise, and simultaneity of the decapitation approach would coerce the enemy leader, who feared for his life and the legitimacy of his regime, to succumb the coercing nation's demands.[26]

With this idea, Warden hoped to slay the dragon of Vietnam. In fact, Warden named the plan he designed for the Desert Storm air campaign as a parody to Vietnam's Rolling Thunder campaign fashioned after Schelling's construct: "This is what we are going to call the plan; it's going to be Instant Thunder . . . This is not your Rolling Thunder. This is real war, and one of the things we want to emphasize right from the beginning is that this is not Vietnam! This is doing it right! This is using air power!"[27] Ironically, though, Warden's conceptual antithesis of risk suffered from many of the same shortfalls that plagued his predecessors. In fact, risk would prove to be more compatible with the defining attributes of post-Cold War conflict than Warden's less dated approach.

The Better State of Peace

Although decapitation resembled punishment in some respects, there was an element of denial in Warden's breed of coercion. His targeting strategy presumably cut the leader off from his fielded forces, disrupting their ability to fight. Additionally, as with Douhet, Warden was a staunch advocate of destroying the enemy's air forces and air defenses. It is important to note, however, that Warden opposed compromising

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[25] Col John A. Warden, III, *The Air Campaign: Planning for Combat* (New York, N.Y.: toExcel, 1998), 55 and Col Richard T. Reynolds, *Heart of the Storm: The Genesis of the Air Campaign against Iraq* (Maxwell AFB, Ala.: Air University Press, January 1995), 28-29.

[26] Reynolds, 72.

[27] Reynolds, 28-29.

airpower's presumably "strategic" nature by directly targeting the enemy's surface forces.[28] Thus, Warden's unambiguous desire to crush the adversary's air forces was interestingly coupled with an expressed intent to leave his ground army alone.

Using his own logic as a baseline, it is somewhat surprising that Warden would arrive at such a bifurcated approach. He readily accepted, for example, that destroying the enemy's will to resist was "tenuous because it is difficult to get at 'will' without destroying either armed forces or economy. In other words, the will to resist collapses when the armed forces no longer can do their job or when the economy no longer can provide essential military—or civilian—services."[29] And yet, Warden seemed to heed only half of his own advice. Interestingly, his solution to this dilemma was to target the enemy's elusive morale by attacking economic and leadership targets exclusively and completely avoiding any direct bombing of his armed forces. Consequently, while decapitation presumably rendered the enemy's ground forces largely ineffective during the war, it failed to degrade their long-term capability to threaten their neighbors in the future. As with punishment and risk, then, the decapitation-based coercion fell short of a better state of peace as a result.

A glaring weakness in Warden's theory is that it aimed to win the war at hand without any real consideration for the peace that followed. Not only did decapitation fail to degrade the enemy's future military capability, it also attempted to bring the adversary to his knees by covering him in rubble. While Warden's focal point was the political leadership, his approach was reminiscent of punishment in the targets he chose to attack. In Warden's version, laying waste to the leadership apparatus and the economic infrastructure that linked the government to the military would presumably lead to capitulation. And yet, in *The Air Campaign: Planning for Combat*, Warden himself recognized the importance of fighting wars with the ensuing peace in mind:

> The purpose of war ought to be to win the peace that follows and all planning and operations should be directly connected with the final objective. Although we pay lip service to this idea, in policy, military, and academic worlds, we easily get lost in a Clausewitzian world where defeat

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[28] Col John A. Warden, III. "The Enemy as a System," *Airpower Journal* 9, no. 2 (Spring 1995), 51-52.
[29] Warden, 113.

of the enemy military forces becomes an end in itself rather than merely one of a number of possible means to a higher end.[30]

Liddell Hart, who conceptualized and codified the concept of the better state of peace, quite clearly addressed and arguably refuted the appropriateness of Warden's concerns:

> A realization of the drawbacks and evils of taking the civil fabric as the objective does not mean the restoration of "battle" in the old sense as the objective. The drawbacks of that Clausewitzian formula were amply shown in World War I. In contrast, World War II demonstrated the advantages and new potentialities of indirect, or strategic, action against a *military* objective.[31]

Warden could not visualize any choice between his approach and the purely destructive nature of Clausewitz's absolute war. With a stroke of his pen, Liddell Hart responded aptly with a style of coercion that targeted the military instead of its political leadership, economy, and civil society.

An astute scholar of war might argue that Warden borrowed Liddell Hart's concept of strategic paralysis for the express purpose of answering the British historian's call for the better state of peace. On the contrary, Liddell Hart's strategic paralysis was far closer to operational interdiction than it was to Warden's "strategic air campaign." The crux of Liddell Hart's indirect approach was the belief that attacking *military* targets such as communications facilities and military command and control headquarters would have a paralyzing effect on the *armed forces* as a whole. He called for "the paralysis and moral disintegration of the opposing *forces* and of the nations behind."[32] Liddell Hart *indirectly* targeted the nation and its leadership by *directly* targeting the adversary's armed forces and the military command, control, and communications. By contrast, Warden left the military alone and instead *directly* attacked the political leadership. His approach took it home to the government and its civil infrastructure on the first day of hostilities, causing the same destruction Liddell Hart hoped to avoid.[33]

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[30] Warden, 144-145.

[31] Liddell Hart, 351, emphasis added.

[32] Liddell Hart, 348, emphasis added.

[33] Liddell Hart, 348-349. A closer look reveals that the two theorists were in fact focused at different levels of war. In his historical analysis of the Second World War, Liddell Hart observed that what was called the "strategic bombing" of Germany could have been more accurately termed "grand strategic bombing." In this discussion, it seemed evident

Political Restraint

Liddell Hart's version of strategic paralysis was also far more compatible with the politically restrained nature post-Cold War conflict than was Warden's "hit-him-in-the-face" approach.[34] Warden hoped to attack—and Liddell Hart hoped to avoid—sensitive targets which have traditionally met with political reluctance. Warden's targeting philosophy took the air war downtown, where collateral damage and civilian casualties were virtually inevitable. In fact, Warden's insistence on a furious initial attack that shocked and surprised the adversary—the kingpin of the decapitation strategy—was clearly at odds with the political realities of modern war. Liddell Hart, on the other hand, avoided the immediate destruction of these "grand strategic" targets and opted instead to achieve paralysis at the operational level by attacking far more politically permissible targets of an explicitly military nature.

To be fair to Warden, he clearly recognized the possibility that his style of coercion would invoke political restraint:

> Political leaders may be loath to attack enemy rear areas at times. Conceivably, cogent political or strategic reasons may call for avoiding attack on rear areas. It is imperative, however, that the operational commander make clear to the political authorities that they are directing a *militarily* illogical course, and that the cost and duration of the war almost certainly will be far higher and longer than it otherwise might be.[35]

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that the term *strategic* as Liddell Hart used it in the 1950s more closely approximated the term *operational* as it is used today. Speaking about the Allied grand strategic bombing campaign, Liddell Hart asserted that "it seems fairly certain, even on a reasonably favourable view of its effects that they were less decisive than the action of air forces against strategic objectives—in the military sphere." Consequently, in Liddell Hart's parlance, Warden's version with its focus on the civilian leadership would more appropriately be termed "grand strategic paralysis." Likewise, Liddell Hart's concept, which targeted the military and its command structure, would more accurately be called "operational paralysis" today. These subtle distinctions are important because they drove the two men to quite divergent theories of war. In the context of post-Cold War conflict, "paralysis" and its governing coercion theory must serve both the war *and* the peace. Basil Liddell Hart understood this; John Warden seemingly did not.

[34] When Warden briefed Lt Gen Charles Horner, the Gulf War air component commander, on the Instant Thunder plan, Horner quipped "it sounds like a 'decapitate the snake plan.' I don't see it as a slick plan, but as a 'hit-him-in-the-face plan.'" See Michael R. Gordon and Gen. Bernard E. Trainor, *The Generals' War* (New York, N.Y.: Little, Brown and Company, 1995), 93.

[35] Warden, 55, emphasis in original.

With this passage, though, Warden revealed three glaring shortfalls of his coercion theory. First, he failed to recognize that a different concept, one such as Liddell Hart's that attacked the military in a more direct fashion, could in fact be a more *militarily* prudent course.

Second, Warden's theory was thin on recommendations to the operational commander in the event that his political leaders chose to disregard such advice. He submitted elsewhere that "these disagreements will arise in virtually every war. The operational commander must make his views known, but he also must be ready with contingency plans in the event he is overruled."[36] Unfortunately, he offered few alternatives to his overtly aggressive approach in spite of the self-professed likelihood that the civilian officials would not permit the application of his politically unpalatable methods.

Third, Warden seemed to miss the Clausewitzian dictum that war has its own grammar but not its own logic.[37] If war has no logic of its own, how could a politically cogent course of action be "militarily illogical"? This gross disconnect between Warden's ideal approach and Clausewitz's real war revealed *the* critical flaw in decapitation theory: This unrestrained method of coercion was incompatible with the politically restrained nature of modern war.

Limited, Non-Protracted War

Not only was decapitation incompatible with political restraint, but the theory also failed to adequately account for the non-protracted nature of post-Cold War conflict. Again, Warden's words were his own worst enemy. In arguing that "*Distant interdiction* has the capability of producing the most decisive outcomes affecting the whole theater," Warden conceded quite accurately that "it also has attached to it the greatest time lags between attack and discernible result at the front."[38] The very attacks deep into the enemy's rear that Warden advocated, then, would not likely have any appreciable impact

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[36] Warden, 112.

[37] Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1976), 605.

[38] Warden, 81, emphasis in original.

on a non-protracted war. Such interdiction may be appropriate in a more prolonged conflict, but arguably not at the outset of hostilities in a brief confrontation.

Decapitation-based coercion, then, proved largely incompatible with the attributes of post-Cold War conflict. In his efforts to counter risk theory, Warden concocted a style of coercion that suffered many of the same drawbacks as the total-war punishment theories. Like the interwar theorists who preceded him, Warden's approach wholly missed the importance of both political restraint and the better state of peace. Despite his efforts to the contrary, the disconnect between coercion theory and the practice of post-Cold War conflict remained.

Denial-Based Coercion: Too Much of a Good Thing

Robert Pape's denial-based theory filled many of the gaps left by the other three methods of coercion. In stark contrast to the preceding theories, Pape's style of denial directly targeted the enemy's military strategy and specifically his fielded forces with the intention of making his defeat inevitable. According to Pape, the adversary would at some point recognize the futility of a continued struggle and surrender to avoid further destruction:

> Denial strategies target the opponent's military ability to achieve its territorial or other political objectives, thereby compelling concessions in order to avoid futile expenditure of further resources . . . Thus, denial campaigns focus on the target state's military strategy.[39]

Denial and the Attributes of Post-Cold War Conflict

With his focus squarely on the adversary's military capabilities, Pape arrived at a theory of coercion that, while not without its own flaws, was far more compatible with the defining attributes of post-Cold War conflict. Denial was decidedly different than the other coercive strategies in that it attacked military targets exclusively. In so doing, it forced the adversary to change his behavior without the malignant side effects so prevalent in punishment and decapitation. By offering a viable concept that avoided the targeting of politically sensitive civilian sites, denial was far more compatible with the politically restrained nature of post-Cold War conflict.

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[39] Pape, 19.

Denial did not, as some might contend, reduce the air arm to the ignoble status of maidservant to the army. Denial-based coercion instead made airpower maidservant to *policy*—as it should be. Denial was, however, unique and, in some cases, superior to its distant coercion cousins because it served both the positive and negative aims of policy. Simply put, it achieved the political objectives within the confines of the political restraints. Conversely, the other three approaches aimed to serve the positive at the exclusion of the negative—to achieve the war aims with no regard for the politically restrained nature of limited war.

The targeting philosophy espoused in the other coercion theories rendered long-term effects that were largely incompatible with the non-protracted nature of post-Cold War conflict. Proponents of both punishment and decapitation boasted of an important denial element in their theories but often failed to mention that it took time for this aspect of their approach to take effect. Pape, however, did not miss the opportunity to draw attention to this shortfall: "In short wars, attacking economic targets rarely affects battlefield capabilities."[40]

Pape's approach to denial, on the other hand, had a more immediate effect. A focus on direct military targeting—undiluted by economic or civil infrastructure attacks—ensured the enemy was denied the use of his fielded forces at the earliest possible time. As such, Pape's style of denial was far more in line with the relatively brief US wars fought in the last decade of the 20th Century.

The most important improvement of denial over the other coercion theories, though, was its greatly increased compatibility with Liddell Hart's concept of the better state of peace. First, it promised to severely degrade the adversary's capacity to wage war in the future. If the war ended quickly, a denial approach ensured the maximum degradation of the enemy's fielded forces. The other approaches, with their emphasis elsewhere, allowed the adversary to escape with his military capability largely intact. Second, denial avoided the unnecessary destruction of the enemy nation's social and economic infrastructure: "Unlike countercivilian strategies, denial strategies make no

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[40] Pape, 75.

special effort to cause suffering to the opponent's society, only to deny the opponent hope of achieving the disputed territorial objectives."[41]

Third, in the event that coercion failed, Pape's model had the added benefit of bringing the coercing nation closer to a brute force victory. Pape asserted that "coercion by punishment rarely works. When coercion does work, it is by denial. Denial does not always work, either, of course, and sometimes states have no choice but to inflict a decisive defeat."[42] And, if required, denial was a large first step in that direction. Mueller cited this added benefit of Pape's coercive approach:

> Denial offers an additional advantage over punishment, in that it fails gracefully if it does not work. The actions a coercer takes to convince the enemy that defeat is inevitable are basically the same as those required to make defeat actually occur; that is prosecuting a denial strategy looks very much like pursuing a pure force victory. If it fails, the effort will not have been wasted.[43]

Contrary to Schelling's belief, denial and its emphasis on military targets is by no means the same as brute force. Because brute force aims to simply destroy the adversary, it is in essence the antithesis of coercion. Denial, on the other hand, is focused squarely on coercion and arguably has even more coercive potential than the other theories. Because denial *resembles* brute force in the targets it attacks, however, it adds a brute-force fallback not available in the other three approaches.

The Shortfalls of Pape's Theory of Coercion

Pape's denial-based coercion theory was, however, not without its own flaws. The first drawback in Pape's construct was his focus on denying the enemy his strategy. There was in this idea an intuitive and often unsubstantiated assumption that the enemy actually had a cogent, well-conceived strategy and that the coercing nation could unequivocally determine what it was. It should be noted that the United States has itself entered conflicts without clear, coherent plans for the conduct of combat operations. It would simply be quite difficult to assign a strategy to a belligerent who has yet to arrive at one himself. Even when the adversary's had a specific plan, Pape assumed the coercing nation always had the capacity to first decipher that strategy and then to attack

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[41] Pape, 19.
[42] Pape, 15.

it. Both were bold assumptions. Getting it wrong could lead to a fruitless or, even worse, a largely counterproductive effort.

The second weakness in his approach was that, for Pape, the coercive aspects of denial were focused on the enemy's *fielded* forces and not on his *air* forces. Pape viewed air superiority as a prerequisite to—but separate from—the prosecution of denial-based coercion: "Air superiority is not a separate coercive air strategy but a necessary step in the pursuit of all four coercive strategies. The central question in air strategy is what to attack once air superiority has been achieved."[44] On the contrary, the destruction of the enemy's air forces and air defenses should be viewed as an integral part of the denial effort itself.[45] A well-conceived denial strategy should not solely target *ground* forces, as Pape would prescribe, but should instead attack *all* military forces. Karl Mueller agreed: "Air superiority, which Pape regards merely as a precondition for aerial coercion, can be coercive in its own right if the enemy's strategy hinges on control of the air."[46]

The third and most significant drawback to Pape's theory, however, was his failure to consider the other coercive tools as complements to denial. In *Bombing to Win*, he grossly overstated denial's case by unequivocally negating the coercive potential of punishment, risk, and decapitation. Pape carelessly tossed the other ideas aside when he asserted "first, punishment does not work . . . second, risk does not work . . . third, decapitation does not work."[47] In so doing, Pape put all his coercion eggs in one denial basket, leaving no room for the other coercion strategies. Short of a decisive military victory, he offered practitioners of war no alternative if his "one-size-fits-all" approach failed to coerce a particularly obstinate adversary or proved unresponsive to the context of a particular conflict. According to Mueller,

> statesmen and officers who find themselves advocating coercive strategies over very high stakes without being able to deny the enemy the prospect of victory through resistance should seriously reconsider their policies. It

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[43] Mueller, "Denial, Punishment, and the Future of Air Power," 191-192.
[44] Pape, 58.
[45] Maj Thomas P. Ehrhard, *Making the Connection: An Air Strategy Analysis Framework*, School of Advanced Airpower Studies (SAAS) Thesis (Maxwell AFB, Ala.: Air University Press, April 1996), 11.
[46] Mueller, "Denial, Punishment, and the Future of Air Power," 214.
[47] Pape, 316.

is less obvious, however, that they should embrace denial alone as the only effective use of coercive air power.[48]

Pape's greatest strength—his emphasis on denial—became his greatest weakness when he wholly discounted the viability of the other coercive methods.

Unlike the approaches that preceded it, then, denial-based coercion theory was quite compatible with the three specific attributes of conflict in the post-Cold War era. Because of the weaknesses in Pape's approach, though, his theory of coercion could not stand alone as a sufficiently coherent and substantive approach to modern war. In fact, the limitations of all four constructs, punishment, risk, decapitation, and denial, point to the need for an approach designed to more adequately meet the specific needs of post-Cold War conflict. Fortunately, though, there is in these existing theories much that informs the content of a new theory of coercive airpower for the post-Cold War era.

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[48] Mueller, "Denial, Punishment, and the Future of Air Power," 208-209.

Chapter 3

A NEW THEORY FOR A NEW ERA

Before fighting the first battle one must have a general idea of how the second, third, fourth, and even the final battle will be fought, and consider what changes will ensue in the enemy's situation as a whole if we win, or lose, each of the succeeding battles. Although the result may not—and, in fact, definitely will not—turn out exactly as we expect, we must think everything out carefully and realistically in the light of the general situation on both sides. Without a grasp of the situation as a whole, it is impossible to make any really good moves on the chessboard.

Mao Tse Tung

In the Second World War, American air strategy was guided by ACTS concepts embodied in the industrial web theory. Policymakers during the Vietnam War looked to Schelling's concept of risk. Desert Storm had John Warden. Regrettably, there is no codified theory to guide the conduct of America's conflicts in the post-Cold War era. Each of these past approaches is largely foreign to the realities of modern war. Each was based on assumptions that no longer meet the post-Cold War standard. To fill the gap, this thesis recommends a three-phase hybrid approach to coercion that optimizes the strengths and minimizes the weaknesses of the existing constructs of coercive airpower.

Phase One

This new coercive airpower theory opens hostilities with an aggressive denial campaign flanked by a fairly sizable element of risk. Air strategists pursuing such an approach would launch a massive attack on military targets while holding decapitation- and punishment-based civilian sites at risk (see Figure 1). By capitalizing on the coercive aspects of both denial and

risk, this hybrid theory seeks synergy from a tenuous partnership between Pape and Schelling. As denial makes defeat progressively likely, the adversary will be compelled to change his behavior. If not, the symbiotic threat of future attacks on leadership and infrastructure targets will persuade him to think again. Schelling argued that the threat of attacking civilian targets is more effective than actually bombing them. The goal in this

phase is to successfully coerce the adversary with the "one-two punch" of denial and risk without having to resort to the other coercive measures.
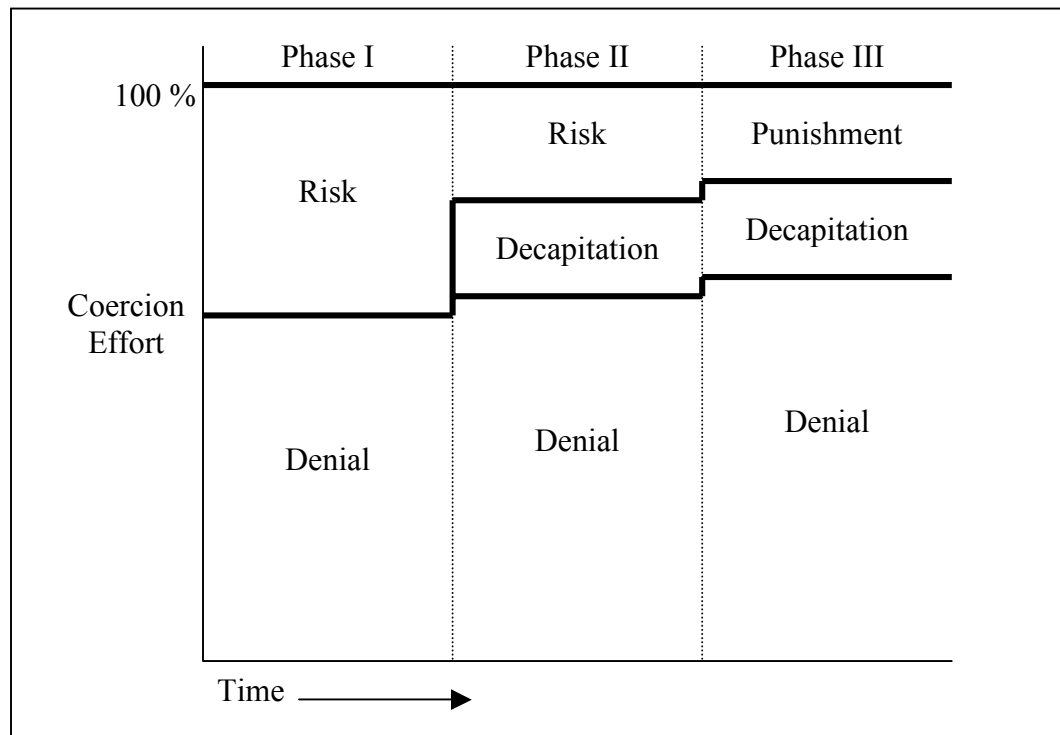
Figure 1. The Coercion Hybrid

Counterair Denial

It is important to note that, unlike Pape, the denial aspect of this hybrid concept attacks the enemy's *armed* forces as a whole—not only *ground* forces, but also *air* forces, air defenses, and naval forces, if applicable—in very large numbers from the first day to the last day of the conflict. Accordingly, Mark Conversino argued that "the opponent's integrated air defense system, including its air units, are part of a nation's fielded forces."[1] Similar to Douhet's venerable concept of command of the air, then, the counterair campaign is not only an essential prerequisite to a coercion strategy, it is part and parcel of the coercion effort itself. Simply stated, counterair is coercive in its own right. As such, *counterair denial* is a pivotal aspect of Phase One.

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[1] Mark J. Conversino, "The Changed Nature of Strategic Air Attack," *Parameters,* Winter 1997-1998, 35.

Few other theorists grasped this seemingly simple concept. For example, Warden, who similarly attacked the adversary's air forces, did so to *enable* the coercive effort and not for any intrinsic coercive value in and of itself. Robert Pape and interwar British airman Jack Slessor largely agreed that air superiority was a vital precursor to the counterland effort. Slessor distinguished himself from Pape, though, when he hinted in *Air Power and Armies* that the enemy may be coerced to surrender "when his air forces form so large and important a proportion of his total fighting strength that the attainment of a real superiority in the air will, in itself, be sufficient to induce him to accept our terms."[2] In his book about airpower in ground wars, however, Slessor avoided any further discussion of the topic, explaining that "these are not the conditions which it is the object of this work to examine."[3] According to Meilinger, "Slessor remained ambivalent about the air superiority campaign, arguing on one hand that it was necessary but on the other that one should not see it as an end in itself."[4] Consequently, neither Pape nor Slessor fully developed the very real denial aspect of the air superiority effort. Additionally, they both missed the point. The issue was not whether airpower could be decisive by achieving air superiority but rather if it could coerce by attacking the enemy's *air* forces in addition to his *surface* forces.

Additionally, there is a subtle but important distinction between counterair denial and air superiority that should be explored. Counterair denial is coercion; air superiority is only one desired *outcome* of the counterair effort for the *sole purpose* of enabling counterland and further counterair denial. Where counterair denial may be an end in itself, then, air superiority is not. Slessor accurately assessed that "air superiority is only a means to an end and, unless it is kept in its proper place as such, is liable to lead to waste of effort and dispersion of force."[5] When air superiority takes on an elevated importance of its own, airpower begins to lose its focus. Limited air assets can be inappropriately diverted away from the counterland effort to achieve an unnecessary level of superiority. In this construct, then, the only goals of counterair are, first, coercion and,

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[2] John Slessor, *Airpower and Armies* (London, U.K.: Oxford University Press, 1936), 28.
[3] Slessor, 28.
[4] Col Phillip S. Meilinger, *Paths of Heaven: The Evolution of Airpower Theory* (Maxwell Air Force Base, Ala.: Air University Press, 1997), 63.
[5] Slessor, 4.

second, enabling through air superiority the counterland denial campaign in Phase One and potentially the other coercive efforts in later phases.

Counterland Denial

In the history of warfare, the enemy's fielded forces have always been a primary—and often *the* primary—object in war. With the advent of airpower, airmen began to scrutinize the truth in the venerable assumption. In an 1940 lecture to the Air Corps Tactical School (ACTS), Maj Muir S. Fairchild claimed that historically,

> the ground commander was forced to accept an <u>intermediate</u> objective; he was left no choice; he must defeat the enemy's armed force as a preliminary to final military pressure through occupation of the enemy's critical areas. This intermediate step to the ultimate goal has been required ever since the beginning of armed conflict. In fact, it has been so consistently necessary as to lead many military men to accept the enemy's armed forces as the true military objective.[6]

Almost immediately airmen looked beyond the enemy's fielded forces, expecting to find that true military objective elsewhere. The fact that airpower can bypass the enemy's ground forces, however, does not necessarily mean that it should.

On the contrary, the enemy's fielded forces remain today a primary target in war. Over sixty years ago, Slessor submitted that "the object of the air force in a campaign of the first magnitude in which great armies are engaged is the defeat of the enemy's forces in the field, and primarily of his army."[7] His assertion about airpower in land campaigns, while appropriate in his own day, may be even more applicable to post-Cold War conflicts such as Allied Force where the air arm is the only component waging war against that army. Accordingly, attacking and degrading the enemy's surface forces has increasingly become the responsibility of airpower.

With his counterland focus, Slessor was, however, in the minority during the interwar period. Douhet and the American airmen of his day sought, as did the contemporary prophet, John Warden, for a theory that would "leap frog" the enemy's surface forces and instead attack his *true* center of gravity. These theorists borrowed the

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[6] Maj Muir S. Fairchild, "The Aim in War," lecture AF-3-L, Air Corps Tactical School (ACTS), Maxwell Air Force Base, Ala., 27 May 1940, AFHRA, file no. 248.2021A-3, 11, emphasis in original.
[7] Slessor, 61.

concept from Clausewitz, who defined a *center of gravity* as "the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."[8] Most interwar theorists on both sides of the Atlantic agreed that fielded forces were historically attacked only as a means to an end with that end being the actual center of gravity. They seemed to miss that the center of gravity could in fact be the enemy army itself. Clausewitz did not: "For Alexander, Gustavus Adolphus, Charles XII, and Frederick the Great, the center of gravity was their army. If the army had been destroyed, they would all have gone down in history as failures."[9] He was even more clear elsewhere: "To sum up: of all the possible aims in war, the destruction of the enemy's armed forces always appears as the highest."[10] To be fair, Clausewitz did go on to list the enemy capital and his allies as additional potential centers of gravity. By looking beyond the army to the belligerent's capital, though, the interpreters of Clausewitz missed a vital point about the concept as it relates to limited war: What was no longer out of reach for technological reasons would nonetheless often be unattainable for political ones today.

Furthermore, the phrase *center of gravity* implied that, by attacking one single panacea target set, the enemy's strength—and thus his resistance—would crumble. Warden and his predecessors certainly believed this to be true. Slessor, and many others since his time, did not: "No nation at war—with possibly in some circumstance the unfortunate exception of ourselves—has any one single centre of which the paralysis by an enemy would be fatal. If there were any one single centre it might be possible so highly to organize its defences as at least to make the attack so costly that the attacker would not continue to face the losses involved."[11]

With this passage, Slessor elucidated an additional point quite pertinent to the politically restrained nature of post-Cold War conflict: A target in the enemy's capital, even if it did amount to this elusive center of gravity, would normally be very well defended, significantly increasing the likelihood of lost aircraft and aircrews.

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[8] Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1976), 596.
[9] Clausewitz, 596.
[10] Clausewitz, 99.
[11] Slessor, 22, emphasis in original.

Conversely, air and space technology is allowing airpower to target land armies with much greater efficiency and with far fewer losses than ever before. In the conflicts of the post-Cold War era, air forces have attacked surface forces without the bloody, costly aspects of force-on-force battle in the age of Slessor, ACTS and, for that matter, Clausewitz. In fact, in very general terms, deployed military forces protected by marginally integrated mobile surface-to-air missiles and anti-aircraft artillery pose less of a threat than deep targets in the capital city guarded by sophisticated networks of several well-integrated and redundant missile and artillery systems.

In sum, Phase One allows the coercing nation to concentrate its effort on counterland and counterair denial while holding decapitation and punishment targets at risk. If successful, the first phase is an end in itself. If not, it serves as a means to an end by substantially weakening the enemy's military capacity to resist attacks in the subsequent phases. Hosmer found such denial and the results it renders to be an essential element of successful coercion in wars of the past and of the future:

> In every major conflict from World War II on, enemies have capitulated or acceded to peace terms demanded by the United States only after their deployed forces have suffered serious battlefield defeats. In future conflicts, enemy leaders are likely to prove equally reluctant to make concessions or terminate conflicts as long as they see a chance to prevail on the battlefield.[12]

Phase Two

Attacking the enemy's armed forces, then, is necessary but not always sufficient. Accordingly, Hosmer also assessed that "attacks or threatened attacks against enemy strategic targets have helped to persuade enemy leaders to terminate wars on terms acceptable to the United States only when the enemy leaders have perceived that they faced defeat or stalemate on the battlefield."[13] In short, denial may in some cases require the implementation of additional coercive instruments. Consequently, in the event that Phase One fails to coerce compliance, the hybrid theory of coercive airpower adds decapitation to the risk and denial formula. In this second phase, this new approach comes at the adversary from three different directions. First, it continues to target fielded

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[12] Steven T. Hosmer, *Psychological Effects of U.S. Air Operations in Four Wars, 1941-1991* (Santa Monica, Calif.: RAND, 1996), xxi-xxii.

forces and remaining air forces in large numbers, with the important addition of an element of denial inherent in the decapitation strategy. Second, it carries out the threat to attack leadership, aiming to capitalize on the coercive potential of Warden's approach. Finally, it continues to hold civilian economic targets at risk.

A transition to the second phase of this coercion hybrid is only possible if political authorities release the sensitive leadership and communication targets associated with the decapitation strategy.[14] Without this shift in political restraint, there is no shift to Phase Two. If civilian officials release such targets in a piecemeal fashion, air strategists will intentionally hold them in reserve until a fundamental change in the politically restrained nature of the conflict allows the leadership sites to be attacked *en masse*. Airpower will consequently have the opportunity to capitalize—admittedly to a lesser degree—on the shock, surprise and simultaneity missed when these targets were not attacked at the outset of hostilities. Additionally, this massive shift ensures the coercing nation's credibility to make good on its threat to decapitation and punishment targets.

Phase Three

In the event that this three-pronged attack fails to reverse the adversary's behavior *and* the political context allows, the coercing nation may transition from holding economic targets at risk to actually pursuing a punishment strategy. Again, there is considerable shock value to holding the bulk of these targets in reserve until the policymakers release them *en masse*. Attacking economic targets in large numbers will have the added effect of bolstering the already potent denial campaign even further. The enemy's armed forces, already suffering from relentless attack, will further feel the denial effects of decapitation in Phase Two and punishment in Phase Three.

It is essential, however, that Phase One counterland/counterair denial continue in full force throughout these later phases. The Battle of Britain taught a lesson quite pertinent to this approach. Germany's initial bombing campaign against England was a counterair denial effort that was succeeding and nearly decisive. In response to a British

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[13] Hosmer, xxi.
[14] There is in this construct an assumption that civilian leaders will initially withhold such targets from attack and generally only release them in large quantities once other coercive measures have failed to compel compliance.

retaliatory raid on Berlin, though, Adolph Hitler abandoned the denial effort altogether, opting for punishment attacks on London instead: "The fateful decision was finally made that the whole weight of the Luftwaffe attack should be switched to London; thus . . . Fighter Command's airfields were saved. It was not a moment too soon."[15] The message should be clear: The intensity of the denial effort must be maintained throughout. It is essential not to switch from one method to another but instead to *add* decapitation and then punishment to the denial effort if necessary.

Limited, Non-Protracted War and the Coercion Hybrid

The hybrid coercion theory is clearly more compatible with the attributes of post-Cold War conflict than were its predecessors. For one, it fits far better into the limited nature of modern war. By design, it provides policymakers with a limited option that stops short of a prematurely aggressive approach. The proposed hierarchy for the types of targets being struck will likely match the limited objectives of post-Cold War conflict.

Additionally, commanders conducting limited wars have a limited number of assets at their disposal. The coercion hybrid initially focuses these restricted resources on a viable denial campaign with the option of allocating additional forces to implement later phases. The new theory allows the limited number of strike aircraft to be more efficiently focused on a condensed number of interrelated denial targets. Concentrating airpower at the outset of hostilities in this way maximizes the principle of economy of force. There is an assumption in this approach that a shift to later stages would be accompanied by an increase in forces, particularly in the assets that will strike decapitation and punishment targets. Without such an increase, this move would be unwarranted and largely inappropriate.

In a passage written over sixty years ago, Slessor captured the essence of the coercion hybrid:

> The whole art of air warfare is first the capacity to select the correct
> objective *at the time*, namely that on which attack is likely to be decisive,
> or to contribute most effectively to an ultimate decision; and then to

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[15] Robin Higham, "The Royal Air Force and the Battle of Britain," in *Case Studies in the Achievement of Air Superiority*, ed. Benjamin Franklin Cooling (Washington D.C.: U.S. Government Printing Office, 1998), 132-133.

concentrate against it the maximum possible force, leaving only the essential minimum elsewhere for security.[16]

In accordance with Slessor's assertion, the new theory is intentionally designed around the idea that limited forces are concentrated to the maximum extent possible. By allowing for a phase shift as the context changes, the coercion hybrid targets the appropriate objective at the optimum time. Additionally, the coercive effort within each phase is arguably the one most likely to entice a timely decision.

The coercion hybrid is also more compatible with the non-protracted nature of conflict in the post-Cold War era. With the focal point of this new approach on denial-based coercion, the coercing nation benefits from the more immediate effects of attacking military targets. Furthermore, by starting with a massive denial effort, the coercion hybrid ensures the maximum possible degradation of the adversary's military capabilities in the event of early capitulation. It should be noted that a shift to the later stages carries with it the realization and tacit assumption that the non-protracted nature of the conflict has changed and that the war will be more prolonged. Consequently, decapitation- and punishment-based targeting philosophies become more appropriate at that time.

The Coercion Hybrid and the Politically Restrained Nature of Post-Cold War Conflict

The greatest strength of the coercion hybrid theory is that, instead of expecting politicians to acquiesce to overtly aggressive military strategies, it realigns airpower with the politically restrained nature of post-Cold War conflict. Approaching coercion in this manner capitalizes on the coercive effects of each individual theory to the maximum extent allowable in politically restrained war. It avoids politically unpalatable targets until the context allows leadership and infrastructure targets to be attacked. It allows airpower to conform to politics without compromising the essence of war in the third dimension. The concept remedies the friction between politician and air strategist so prevalent in the other approaches. It is responsive to political demands without being foreign to military thought. Unlike Warden and his ACTS predecessors, it aligns military grammar with political logic. In fact, in more general terms, this new theory aligns airpower theory with the venerable teachings of Clausewitz himself: "Subordinating the

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[16] Slessor, 82-83, emphasis in original.

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political point of view to the military would be absurd, for it is policy that creates war. Policy is the guiding intelligence and war only the instrument, not vice versa. No other possibility exists, then, than to subordinate the military point of view to the political."[17]

A campaign plan that exclusively attacks the enemy's armed forces at the outset of hostilities and initially avoids deep-strike civilian targets altogether is far more compatible with political restraint than one that starts with a punishment or decapitation strategy. This approach not only minimizes the potential for collateral damage and civilian casualties, but also reduces the likelihood of losing friendly aircraft in the often more heavily defended areas of the country. In fact, it is fair to postulate that, by waiting to "go downtown," the enemy's air defenses may be at a lower state of alert by the time such attacks become necessary and permissible. Some air defense sites may actually be moved to defend elsewhere, leaving the capital more vulnerable to Phase Two and Three attacks. American politicians and the public alike must realize, however, that losses will still occur. They must be prepared for collateral damage and civilian casualties even in this more careful approach. In line with the politically restrained nature of post-Cold War conflict, however, this new theory truly reduces the chances of each to the absolute minimum.

It is quite interesting that one of the most vocal critics of a pure denial effort, John Warden, recognized the potential need for the method advocated in the hybrid theory:

> Ideally, a commander will attack centers of gravity as close as possible to the leadership ring of the five rings. He may, however, be forced to deal with the enemy's fielded military forces because he cannot reach strategic centers without first removing enemy defenses because enemy forces are threatening his own strategic or operational centers of gravity *or because his political masters will not permit him to attack strategic centers*.[18]

In fact, this new approach attacks each of the centers of gravity identified in Warden's five rings, but orders them in a way more compatible with political restraint.[19]

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[17] Clausewitz, 607.

[18] Col John A. Warden III. "The Enemy as a System." *Airpower Journal* 9, no. 2 (Spring 1995): 53, emphasis added.

[19] Warden, 47-51. Warden's innermost ring, leadership, is attacked in Phase Two. The next two centers of gravity, infrastructure and organic essentials, are targeted in Phase Three. Direct attacks on Warden's next ring, population, are conspicuously omitted as Warden himself recommended. By avoiding targets that would cause the civilian population pain, suffering, and privation, however, the coercion hybrid aims at their

The Coercion Hybrid and the Better State of Peace

In comparison to the previous theories of airpower, the coercion hybrid also allows for a far better state of peace. With the denial effort primary and pervasive throughout, this new approach severely weakens the adversary's future aggressive capacity by targeting his fielded forces from the beginning of the conflict to the end. By initially avoiding decapitation- and punishment-based coercion, it also aims to bring the adversary to comply before the destruction of civilian targets that should preferably be left intact.

The overarching purpose for each method employed in this new theory is, of course, to coerce the enemy. Beyond the coercive value of denial-based targeting, though, the desired effect of attacking military targets in this approach is destruction *and* paralysis. Both serve the short-term objectives of winning the war itself while the destruction of military equipment, supplies, and facilities also serves the long-term aim of winning the peace as well. And, if coercion fails altogether, denial's destructive aspect facilitates a brute force victory.

The desired effect of the decapitation attacks in Phase Two is maximum paralysis and minimum destruction. Where Warden's approach resulted in appreciable levels of both, decapitation in the hybrid theory aims to win the war with the least detrimental effect on the post-war environment. In fact, decapitation is preferable to punishment primarily for this reason. The better state of peace is, of course, optimized if the coercive effort is successful prior to the implementation of Phase Two. While the negative impact of decapitation is less severe than punishment, the second phase does invite the less desirable effects of political leadership and communications targeting. In the coercion hybrid, however, there is a favorable chance that the synergistic Phase One instruments of denial and risk will negate the need to resort to such attacks.

Although unlikely, it is possible that a coercing nation may determine that a certain degree of damage to the enemy's national economy and civil infrastructure is in

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hearts rather than their homes and workplaces in a manner quite contrary to Warden's theory. Additionally, this new approach also protects America's most vulnerable center of gravity, public support, by minimizing collateral damage and civilian casualties. Warden's final ring, fielded military, is both the focal point of Phase One and also aggressively targeted in later phases.

line with the optimal state of peace. A shift to Phase Three would allow for this desired end state. It should be noted, however, that it is generally far more appropriate to weaken an adversary by degrading his military might rather than tearing down his economic capacity. Attacking military targets fights the war with the peace in mind. Civilian targeting most often aims to win the war without due regard for the peace one desires.

The Escalatory Nature of the Coercion Hybrid

The most unfortunate aspect of this new approach is that it quite clearly carries with it the burdensome appearance of gradualism—anathema in most airpower circles. However, this theory differs from gradual escalation in two subtle but quite significant ways. First, the initial denial phase is designed to be anything but gradual, starting with a massive attack on air and ground forces and maintaining that intensity throughout the conflict. Second, civilian targets are not released and withheld on an ad hoc basis as they were during Rolling Thunder but very consciously held in reserve until the politics of the conflict allows airpower to be unleashed *en masse*. In fact, this very deliberate stair-step approach, complete with well-conceived, compatible, and coherent phases, would more accurately be labeled "phased escalation."

To distinguish between this new concept of phased escalation and the gradual escalation of the Vietnam era, consider again the difference between Rolling Thunder and Linebacker. Aside from the markedly different context in 1968 and 1972, Johnson and Nixon used escalation in very different ways. It was Johnson's haphazard "on-again, off-again" version that gave Schelling's theory of risk a bad name. There is in fact universal agreement that Rolling Thunder was an utter failure. While US political aims were admittedly more modest in 1972, most agree that the Linebacker operation serves as a historical example of successful coercion. Nixon, who started with a denial-based Linebacker I campaign, later added massive punishment-based attacks in Linebacker II. Nixon's approach, then, approximated the concept of phased escalation; Rolling Thunder clearly did not.

Another complaint with gradual escalation that grew out of Johnson's supervision over the air war in Vietnam is that it allows the enemy to recover from a blow and reconstitute its military strength. It is true that, because of constant US vacillation, this occurred numerous times in Vietnam. This would clearly not be the case, however, in a

strategy following the phased coercion hybrid. From the first to the last day of the war, this new theory calls for non-stop attacks on military targets. The enemy's armed forces would never get a break from such a relentless denial effort.

Furthermore, phased escalation allows this hybrid approach to strike a pivotal balance between structure and flexibility absent from the existing theories of coercion. In general, there is a conspicuous and pervasive disconnect between the fluidity of American politics and the generally rigid practices of the US armed forces.   This airpower theory begins to bridge the gap with an approach that is at the same time politically flexible and militarily sensible. It builds expected policy shifts into the plan up front, allowing changes to flow in a coherent manner.

Conclusion

The coercion hybrid, then, is compatible with the attributes of conflict in the post-Cold War era. It builds upon previous theories of coercion to arrive at an approach in line with limited, non-protracted war.   It provides an approach structured for and responsive to the politically restrained nature of the limited wars of today and tomorrow. It pulls the existing constructs together in a way that yields a better state of peace. Most importantly, it provides the 21st Century airman with a well-constructed theory of coercive airpower specifically designed for the unsettled landscape of the post-Cold War era.

Chapter 4

THE COERCION HYBRID AND POST-COLD WAR CONFLICT

Just as some plants bear fruit only if they don't shoot up too high, so in the practical arts the leaves and flower of theory must be pruned and the plant kept close to its proper soil—experience . . . theory and experience must never disdain or exclude each other; on the contrary, they support each other.

Carl von Clausewitz

The purpose of this chapter is to analyze the coercion hybrid from the perspective of three post-Cold War conflicts, the Gulf War, Deliberate Force, and Allied Force. In some cases, aspects of this new theory are prevalent in the practical experience of America's wars since the end of the Cold War. In other cases, US airmen may have faired better with the guidance of this revised theoretical construct.

The Gulf War

The Gulf War stood at the crossroads of the Cold War and the era that followed. While it took place amidst the dissolution of the Soviet Union, it was fought with theory and force structure developed during the Cold War. As such, it was both an echo of the past and a window to the future. Beyond the oft-told official story of the Desert Storm air campaign, much can be learned about post-Cold War conflict by the first war of the new era.

A skeptic of the coercion hybrid may argue that it was decapitation as opposed to the denial aspects of the Desert Storm air campaign that led to success in the Gulf War. Such an individual would not be alone in that assessment. For at least three reasons, however, he also would not be altogether correct.

First, decapitation may not have been as successful as its proponents suggest. Of course, Warden and many of his fellow airmen saw the Gulf War as a validation of the

Instant Thunder plan and the overarching concept of strategic paralysis.[1]   Not surprisingly, Pape disagreed: "A strategic bombing strategy, designed by Warden and aimed at decapitating the Iraqi leadership, was executed during the opening days of the air war against Iraq, and failed completely."[2] Lambeth furthered Pape's assertion: "In the end, the so-called strategic part of the air campaign, namely, those sorties not directly aimed at taking down Iraq's air defenses, command and control links, and fielded ground forces, did little to affect the immediate course and outcome of the war."[3]   More importantly, the findings of the *Gulf War Air Power Survey (GWAPS)* cast doubt on the efficacy of the front-loaded decapitation approach:

> Even though the U.S.-led Coalition managed to achieve one of the most lopsided and comparatively bloodless military triumphs in modern history, Coalition air forces did not succeed in toppling Saddam Hussein or completely severing his communications with the Kuwait theater or the Iraqi people during the forty-three-day campaign . . . So accepting the ambitious aims of decapitation and destruction as measures of effectiveness against the L [leadership] and CCC [command, control, and communication] targets entails the paradoxical assessment of complete failure by Coalition air power against two supposedly key target systems during one of the most successful campaigns in history.[4]

The second reason it would be inappropriate for a Warden advocate to claim victory is that Desert Storm was only a partial success. Among other objectives, General Schwarzkopf explicitly set two principal goals for the operation: (1) To expel the Iraqi army from Kuwait and (2) to destroy the Republican Guard. General Colin Powell was quite specific about his vision of the desired end state: "I won't be happy until I see those tanks destroyed . . . I want to finish it; to destroy Iraq's army on the ground."[5] While the Coalition forced the Iraqi army from Kuwait, many have argued that it did not

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[1] Col John A. Warden, III, *The Air Campaign: Planning for Combat* (New York, N.Y.: toExcel, 1998), 150-153.

[2] Robert A. Pape, "The Air Force Strikes Back: A Reply to Watts and Warden," *Security Studies* 7, no. 2 (Winter 1997/98): 213.

[3] Benjamin S. Lambeth, *The Transformation of American Airpower.*   Ithaca, N. Y.: Cornell University Press, 2000, 147.

[4] Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey, Volume II: Operations and Effects and Effectiveness* (Washington, D.C.: U.S. Government Printing Office, 1993), 278-279.

[5] Lt Col Ben Harvey, personal notes, subject: Desert Story, 6 August – 14 September 1990, AFHRA, IRIS no. 0876218, file no. K239.0472-61,2, 22.

sufficiently degrade Iraq's future offensive capability. James Chace assessed years after the war that President George Bush "was determined to expel Saddam from Kuwait and destroy the Iraqi military . . . He succeeded in the first aim, and failed badly in the second."[6] In *Certain Victory: The U.S. Army in the Gulf War*, Brig Gen Robert Scales left no doubt as to his assessment of the "peace" accomplished by the air campaign: "Despite 41 days of almost continuous aerial bombardment, the Republican Guard remained a cohesive and viable military force able to fight a vicious battle and survive to fight insurgents in northern and southern Iraq."[7]

There is a third reason a decapitation proponent would be largely incorrect: It was more likely that the counterland denial campaign as opposed to the decapitation effort led to the measured success of Desert Storm. According to Pape, "the air power that ultimately coerced Iraq was not the bombs directed at Baghdad, but those that smashed Iraq's field army in the Kuwaiti theater of operations."[8] Likewise, Ben Lambeth reported that the Gulf War allowed airpower

> to demonstrate its real leverage of greatest note, namely, the ability to engage an enemy army wholesale, and with virtual impunity, by means of precision attacks. Appreciation of this point is crucial to a correct understanding of what air power showed itself, for the first time in Desert Storm, capable of doing if properly used.[9]

In the aggregate, the Coalition did succeed in forcefully evicting Iraqi forces from Kuwait. The fundamental question is whether an intense and up-front counterland denial campaign would have rendered a more favorable peace and a less threatening Iraqi military. It is fair to postulate that the Coalition would have been more rather than less successful in achieving both goals had the air campaign been weighted in favor of denial instead of decapitation. Lambeth, for one, pondered whether airpower would have achieved more if denial had played a more dominant role in the Desert Storm air war:

> One might argue in hindsight that at least many of the allied attacks against Iraq's infrastructure drew off both sorties and precision weapons that could have been put to better use against targets of more direct

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[6] James Chace, "New World Disorder," *New York Review of Books* XLV, no. 20 (17 December 1998): 61.

[7] Brig Gen Robert H. Scales, Jr., *Certain Victory: The U.S. Army in the Gulf War* (Washington, D.C.: Brassey's, 1994), 358.

[8] Pape, 213-214.

[9] Lambeth, 117.

relevance to Iraq's fighting capacity.   They also may have been unnecessary in retrospect.[10]

It is quite interesting that, while the Gulf War is often heralded as the antithesis of Vietnam-style gradualism, the Desert Storm air campaign had its own breed of escalation. Indeed, the swift and overwhelming "strategic offensive," which grew out of Warden's Instant Thunder plan, bore little resemblance to the incremental pattern of Rolling Thunder. Because air planners chose to lead with a decapitation-based strategy, though, the counterland campaign actually escalated gradually from a slow start to a full-blown effort just prior to the ground invasion. In fact, just prior to commencement of hostilities, General Schwarzkopf expressed frustration over the air component's plan because it failed to emphasize attacks on the Republican Guard.[11]   This incremental counterland effort was one factor—arguably an important factor—that allowed Iraq to escape with much of its army and elite forces intact.

There is, of course, no such gradualism in the coercion hybrid's counterland campaign. Conversely, attacks on the enemy's fielded forces are emphasized from the first to the last day of hostilities. In sum, the coercion hybrid is neither the risk-based Rolling Thunder of Vietnam nor the decapitation-based Instant Thunder of Desert Storm. Instead, the denial-heavy alternative would more appropriately be dubbed "Constant Thunder—The Storm that Never Ends."

After a heavy initial emphasis on leadership targets and the slow start of counterland, Desert Storm planners eventually used the massive air armada at their disposal to essentially do everything at the same time. In short, an orderly and efficient use of Coalition air forces was not required. Nor was it forthcoming. An astute scholar of Desert Storm may refute this assertion, arguing that the air campaign plan had separate phases.   It is true, in fact, that air planners identified four such phases: (1) the strategic offensive, (2) destruction of enemy air defenses in Kuwait, (3) preparation of the battlefield, and (4) the ground invasion. According to GWAPS, however, these phases were distinct only on paper. Instead of working efficiently toward a focused, common objective, the result was "an air campaign with divergent goals."[12] Additionally, General

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[10] Lambeth, 147.
[11] GWAPS, 96.
[12] GWAPS, 96.

Horner conceded that, "in reality, there were no distinct phases, all operations were going simultaneously."[13]

Using the Gulf War experience as a template for future conflicts, then, would be a dangerous proposition. The massive military force structure employed during Desert Storm was a legacy of the Cold War. America's post-Cold War military is greatly reduced in size. What may have been possible in 1991 would not likely fit the limited resources available in the limited wars since that time. Conversely, the coercion hybrid, with its distinct phases, offers an approach more tailored to the force-constrained realities of post-Cold War conflict.

Operation Deliberate Force

Deliberate Force, the NATO air campaign in Bosnia from 30 August to 14 September 1995, closely resembled the coercion hybrid theory. In fact, the stated military objective, "a robust NATO [North Atlantic Treaty Organization] air campaign that adversely alters the BSA's [Bosnian Serb Army's] advantage in conducting successful military operations against the BiH [Bosnian Army]," paralleled the denial aspects of Phase One. The desired end state, "Bosnian Serbs sue for cessation of military operations, comply with UN [United Nation] mandates, and negotiate," pronounced NATOs clear coercive intent.[14] In short, the goal was to compel the Serbs to accept the terms of what later became the Dayton Peace Accords. Additionally, military commanders and NATO politicians alike were adamant about avoiding collateral damage and civilian casualties that could upset support for their efforts to coerce the Serbian acquiescence in Bosnia. According to Mark Conversino, this "desire to limit collateral damage and Serb casualties to the lowest possible level reflected the political realities of the Balkans."[15] Ben Lambeth recognized the delicate political context as well: "Concern

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[13] Lambeth, 106.

[14] Briefing, AIRSOUTH, subject: NATO Air Operations in Bosnia-Herzegovina— Deliberate Force (U), 1 August 1995. (NATO Secret) Information extracted is unclassified, AFHRA, Air University Balkans Air Campaign Study, Folder B3d-3, IRIS no. 01135134.

[15] Lt Col Mark J. Conversino, "Executing Deliberate Force, 30 August – 14 September 1995," in *Deliberate Force: A Case Study in Effective Air Campaigning*, ed. Col Robert C. Owen (Maxwell Air Force Base, Ala.: Air University Press, January 2000), 159.

over collateral damage was extremely high, since even a single stray bomb resulting in a catastrophe on the ground would end instantly any UN confidence in NATO's ability to be precise."[16]

The concept that ultimately guided air operations in Bosnia was the culmination of almost three years of planning for operations in Bosnia. The common thread in each of these plans was an awareness of the delicate political sensitivities related to air operations in the region. As such, each concept for air attack in Bosnia started with politically permissive military targets, offering other options in the event that denial-based attacks were unsuccessful. In fact, the final air campaign plan for Deliberate Force bore a striking resemblance to the stair-step approach of the coercion hybrid. It called for a "phased sequence of attack" that featured strictly military targets during the initial bombing phase.[17] Specifically, the target categories attacked at the outset, (1) fielded forces, (2) direct and essential military support, and (3) integrated air defenses, closely paralleled the hybrid theory's Phase One focus on counterair and counterland denial.[18]

There was also an important element of risk added to the denial-based initial phase of Deliberate Force. Conversino submitted that the NATO military commanders and their staffs "factored in political constraints during the planning process, designing a campaign capable of gradual escalation that nevertheless sought to destroy things rather than kill people."[19] The plan called for strikes on leadership and infrastructure targets in the event that such bombing became necessary and, more importantly, were approved by civilian officials within NATO. According to Chris Campbell, politicians and military planners alike recognized such attacks "might well result in increased collateral damage and were seen as a huge political step to take."[20] Fortunately, the combination of denial- and risk-based coercion and the success of Bosnian Croat ground action drove Bosnian

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[16] Lambeth, 176.

[17] "Deliberate Force Factual Review," Volume II (U). (NATO Secret) Information extracted is unclassified, AFHRA, Air University Balkans Air Campaign Study, Folder B4-3, IRIS no. 01135143, 2-6.

[18] Briefing, Lt Gen Michael D. Ryan, subject: Operation Deliberate Force, US Air Force Corona Conference, February 1996. (Secret) Information extracted is unclassified.

[19] Conversino, 159.

Serb compliance prior to the initiation of these more risky attacks. As such, Deliberate Force could be viewed as an example of an air campaign that achieved its coercive intent in the first phase of the hybrid theory.

Largely as a result of the approach NATO adopted, the alliance flew 3,535 sorties and dropped over 1,100 bombs with no reported incidents of collateral damage or civilian casualties.[21] Planners carefully crafted a counterair and counterland denial campaign that successfully coerced the Serbian Army and its leadership without increasing the likelihood of such incidents through leadership and infrastructure attacks. Lambeth reported that, "in the end, NATO's efforts to minimize unintended destruction paid off well. There were no Serbian complaints about noncombatant fatalities or other harm to innocents, since there was no collateral damage to speak of."[22]

Measured by its own objectives and desired end state, Operation Deliberate Force was clearly a success. As a result of pressure from the ground war and the air campaign, Slobodan Milosevic accepted the Dayton Accords and the delicate peace in Bosnia secured during the operation remains to this day. The skillful military planning and execution of Deliberate Force under quite difficult political circumstances should serve as a guide to the conduct of conflict in the post-Cold War era.

Operation Allied Force

Four years after Deliberate Force, NATO found itself once again at war in the Balkans. The opponent remained Serbia, its leadership, and its army but the playing field had moved from Bosnia to the Serb province of Kosovo. The ensuing 78-day air war, Operation Allied Force, offers students and practitioners of airpower alike many pertinent lessons for the conduct of war in the post-Cold War era.

First, while Deliberate Force achieved NATOs objectives with denial and risk alone, Allied Force provided an example of a post-Cold War conflict where the other coercive methods became necessary. A great debate rages to this day over whether Slobodan

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[20] Col Christopher M. Campbell, "The Deliberate Force Air Campaign Plan," in *Deliberate Force: A Case Study in Effective Air Campaigning*, ed. Col Robert C. Owen (Maxwell Air Force Base, Ala.: Air University Press, January 2000), 100.
[21] Conversino, 168.
[22] Lambeth, 176.

Milosevic accepted NATOs terms because of the denial targeting of fielded forces in Kosovo or the punishment- and decapitation-based coercion in Serbia proper. General Wesley Clark, Supreme Allied Commander in Europe during Allied Force, advocated an emphasis on denial while Lt Gen Mike Short, his air component commander, strongly supported decapitation and punishment. A well-publicized debate between the two during Allied Force typifies the argument that continues to this day: "'This [the leadership and infrastructure targeting plan in Serbia proper] is the jewel in the crown,' Short said. 'To me, the jewel in the crown is when those B-52s rumble across Kosovo,' replied Clark. 'You and I have known for weeks that we have different jewelers,' said Short. 'My jeweler outranks yours,' said Clark."[23] In essence, what resulted was a compromise between the two approaches.

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[23] Dana Priest, "Tension Grew with Divide over Strategy," *Washington Post,* 21 September 1999, 1.

Political Objectives

President Bill Clinton on 24 March 1999:
- Demonstrate NATO's opposition to aggression.
- Deter Milosevic from further attacks.
- Damage Serbian capacity to wage war.

NATO Secretary General Solana on 1 April 1999:
- Stop the killing in Kosovo.
- End the refugee crisis; make it possible for them to return.
- Create conditions for political solutions based on Rambouillet Accord.

US Military Objectives

William Cohen, US Secretary of Defense, on 24 March 1999:
- Deter further action against Kosovars.
- Diminish Serbian Army's ability to attack.

General Henry Shelton, Chairman, Joint Chiefs of Staff, on 24 March 1999:
- Reduce ability of Serbian forces to attack the Kosovars.

Secretary Cohen and General Shelton on 24 March 1999:
- Deter further action against Kosovars.
- Reduce ability of Serbian forces to attack the Kosovars.
- Attack Serbian air defenses with minimal collateral damage and civilian casualties.
- Failing to deter Milosevic in the near term, diminish his ability to wage war in the future.

Figure 2. Allied Force Objectives

Second, the remarkably high levels of political restraint at the outset of hostilities diminished in a sizeable way the likelihood that decapitation- and punishment-based targeting strategies would initially have the desired effect. The few leadership and infrastructure targets that made their way through the political target selection process in the first few weeks could hardly pack the punch called for in these theories of coercion. Rather than compelling compliance, haphazard bombing initially only emblazoned resistance. The politics at the outset of Allied Force weakened the potential blow of these strikes to the point where they were essentially ineffective. Clausewitz anticipated this phenomena: "Thus policy converts the overwhelmingly destructive element of war into a

mere instrument. The terrible two-handed sword that should be used with total strength to strike once and no more, becomes the lightest rapier—sometimes even a harmless foil fit only for thrusts and feints and parries."[24] Furthermore, in his study of airpower in four wars, Steven Hosmer concluded that "U.S. self-imposed constraints are likely to limit the potential coercive leverage that can be achieved through future air operations against strategic targets."[25]

At the politically charged outset of post-Cold War conflict, the enemy's armed forces may be the only target set upon which airpower can concentrate overwhelming force. Because leadership and infrastructure targets are often more politically sensitive, a far more appropriate course of action would be to initially hold these sites at risk and in reserve. Once the coercive potential of risk has been maximized and the political climate allows for the increased likelihood of collateral damage and civilian casualties, the coercion hybrid then attacks these sites in wholesale fashion.

Third, NATO found that every incident of collateral damage and civilian casualties—predictable by-products of such a prematurely aggressive approach—brought an increase in the political restraint and a further decrease in the already questionable effectiveness of the attacks against these target sets. In sum, these piecemeal attacks arguably had very little effect on the eventual outcome until the politically restrained nature of the war changed significantly in early May. According to John Keegan, there "have really been two air wars, the first lasting a month, the second six weeks." The first was a measured failure and the second—a success.[26] As a result of this shift in the political context of Allied Force, NATO allowed airpower to conduct larger and more coordinated attacks against Serbia's political leadership and civil infrastructure.

The fourth important lesson was that, once the political climate allowed, it was arguably punishment rather than denial that had the greatest coercive value in Allied Force. The denial-based targeting that had been effective in Bosnia and Kuwait met with

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[24] Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1976), 606

[25] Steven T. Hosmer, *Psychological Effects of U.S. Air Operations in Four Wars, 1941-1991* (Santa Monica, Calif.: RAND, 1996), xx.

[26] John Keegan, "Please, Mr. Blair, Never Take Such a Risk Again," *London Daily Telegraph,* 6 June 1999, 1.

questionable results in Kosovo. With no threat of a ground invasion, Serb military and paramilitary forces could disperse and conceal themselves in ways that made a denial strategy increasingly difficult. Lambeth found that "in contrast to Desert Storm, the campaign's attempts at denial did not bear much fruit." He added that, "ironically, also in contrast to the coalition's ultimately unrequited efforts to coerce Saddam Hussein into submission, punishment *did* seem to work against Milosevic in this case."[27] While denial seemed effective and appropriate in the Gulf War and Deliberate Force, then, the war in Kosovo suggested that other coercive methods might be required. In short, denial may not be the "one-size-fits-all" coercive method that Pape had hoped it was.

The final lesson from the Kosovo confict is that stumbling through an air campaign without the guidance of a clear, coherent strategy invites disaster. The air war over Serbia by no means unfolded in accordance with a well-orchestrated plan based on any such concept. On the contrary, it evolved haphazardly on a daily basis in response to the ebb and flow of the international political mood. NATO leaders released and withheld individual targets in response Serbian actions within Yugoslavia and public opinion within their own countries. Interestingly, though, Allied Force unfolded along lines roughly approximating the coercion pattern prescribed by the hybrid airpower theory—more by accident than by design. In very general terms, denial ran throughout with a sizable increase in decapitation- and punishment-based targets later in the conflict.

Gradualism in Allied Force, however, was more reminiscent of gradual escalation in Johnson's Rolling Thunder campaign than it was phased escalation in the coercion hybrid. In Kosovo, there was no semblance of a conscious, calculated "stair-step" approach. On the contrary, NATO representatives from each of the nineteen countries could "line-item-veto" individual targets on the Air Tasking Order. In the coercion hybrid, policymakers veto the entire phase until the political context allows for the full application of overwhelming force in a coherent manner. Without this appreciable contextual shift, there can be no shift to the later phases.   Unlike Allied Force and Rolling Thunder, phased escalation optimizes the risk value of future attacks as it maintains an appreciable level of shock, surprise, and simultaneity. Ironically, though, what failed in Vietnam seems to have been a success in Operation Allied Force.

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[27] Lambeth, 226.

Conclusion

"No plan survives first contact with the enemy," but some plans survive better than others.[28] The meandering path NATO stumbled upon in the Balkans was ultimately the only approach compatible with the politically restrained nature of the air war over Serbia. Unfortunately, it became quite clear during the planning and execution of Allied Force that airmen had no coherent, conceptually sound strategy for the politically restrained, incremental nature of the Kosovo conflict. When policymakers rejected airpower's traditional "all-or-nothing" approach, military planners had nothing to fall back on as an alternative. Ironically, had they looked past their favorable memories of Desert Storm, they may have seen in Deliberate Force a more appropriate model for yet another politically sensitive air war in the Balkans. Likewise, future air strategists may look to the hybrid theory of coercive airpower for such a viable option in the post-Cold War conflicts of the 21st Century.

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[28] This quote is commonly attributed to Helmuth von Moltke (the elder). See Robert D. Heinl, Jr., *Dictionary of Military and Naval Quotations* (Annapolis, Maryland: United States Naval Institute Press, 1966), 239.

Chapter 5

POLITICS, DOCTRINE, AND THE FUTURE OF
AMERICAN AIRPOWER

*The social changes of our time may so transform the whole nature of
warfare that the mode of thought of the military professional today will be,
at best, inadequate or, at worst, irrelevant. This is the kind of change for
which we must today be prepared and able, if necessary, to adjust.*

Michael Howard

Gradualism clearly played an important role in the planning of Deliberate Force
and the execution of Allied Force. In fact, top leaders in the US Air Force are beginning
to seriously consider the implications of the escalatory nature of post-Cold War conflict.
Air Force General Joseph Ralston, who replaced General Clark as Supreme Allied
Commander, Europe, revealed the growing importance of politics in the post-Cold War
era:

> US airmen will no doubt continue to maintain that a rapid and massive
> application of airpower will be more efficient and effective than gradual
> escalation. I share this belief. Yet, when the political and tactical
> constraints imposed on air leaders are extensive and pervasive—and that
> trend seems more, rather than less, likely—then gradualism may be
> perceived as the only option, and whether or not we like it, a measured and
> steadily increasing use of airpower against an opponent may be one of the
> options for future war.[1]

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[1] John T. Correll, "The Use of Force," *Air Force Magazine,* December 1999, 39. Gen
Ralston's quote was very carefully crafted from a passage in Col Phillip S. Meilinger's
article, "Gradual Escalation" (*Armed Forces Journal International,* October 1999, 18):
"Airmen will, no doubt, continue to maintain that a rapid and massive application of air
force will be more efficient and effective than gradual escalation. They are probably
correct. Yet when the political and tactical constraints imposed on air leaders are
extensive and pervasive—and that trend seems more rather than less likely—then gradual
escalation will be more appealing . . . A measured and steadily increasing use of airpower
against an enemy, which gives him ample opportunity to assess his situation and come to
terms, combined with a remarkably low casualty rate for both ourselves and the enemy's
civilian populace, may be the future of war." The similarities and the differences of these
two quotes are quite intriguing.

General Jumper, expanded upon this idea by recognizing the need for a new approach to airpower that incorporates the growing likelihood of both gradualism and political restraint:

> From the air campaign planning point of view, it is always the neatest and tidiest when you can get a political consensus of the objective of a certain phase, and then go about [achieving] that objective with [the] freedom to act as you see militarily best . . . [But that] is not the situation we find ourselves in. We can rail against that, but it does no good. It is the politics of the moment that is going to dictate what we are able to do . . . If the limit of that consensus means gradualism then we are going to have to find a way to deal with a phased-air campaign with gradual escalation . . . We hope to be able to convince [civilian politicians] that is not the best way to do it, but in some cases we are going to have to live with that situation.[2]

The new theory of coercive airpower developed in this thesis may be one such approach.

Indeed, gradualism may not be ideal. In fact, many airmen have argued quite persuasively through the years that gradual escalation is no way to run an air war. Even worse than an incremental campaign, though, is the prospect of being ill-prepared for one in the event that the political leadership requires it. This is arguably what occurred during the planning and execution of Allied Force.

In essence, the purpose for Air Force doctrine is to prepare airmen for future conflict by building on past experience, regardless of how unpleasant that experience may have been. Unfortunately, Air Force doctrine past and present has fallen well short of that mark. It currently provides little practical guidance to the airmen who will plan and fight tomorrow's post-Cold War conflicts. In short, present service doctrine provides the nation with one and only one way to prosecute an air campaign: the parallel application of overwhelming force to deliver a swift, decisive blow. Any variation amounts to little more than a reluctant, makeshift adjustment on the fly. It prepares airmen quite well to fight their political masters over the right way to prosecute an air war but leaves them empty-handed when forced to fight an adversary in a politically restrained environment.

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[2] James A. Kitfield, "Another Look at the Air War That Was," *Air Force Magazine,* October 1999, 42.

For example, *Air Force Doctrine Document (AFDD) 1* informs airmen that "the versatility of air and space power, properly executed in parallel attacks, can attain parallel effects which present the enemy with multiple crises occurring so quickly that there is no way to respond to all or, in some cases, any of them." It goes on to state that "such a strategy places maximum stress on both enemy defenses *and the enemy society as a whole.*"[3] By encouraging airmen to employ such an overtly aggressive strategy, doctrine advocates an approach that is both at odds with the better state of peace and unresponsive to the politics of modern war.

Not only is the officially sanctioned Air Force way of war the antithesis of gradualism, but the service doctrine also still places strategic attack well above the level of counterland. Caroline Ziemke recognized the Air Force's doctrinal neglect of denial-based concepts, positing that, "by making airpower synonymous with strategic bombing, airpower advocates effectively excluded some of the most potentially decisive aspects of airpower from their own scale of effectiveness."[4] In fact, she went so far as to argue that "strategic bombing is not mere doctrine to the USAF; it is its lifeblood and provides its entire raison d'etre. Strategic bombing is as central to the identity of the Air Force as the New Testament is to the Catholic Church."[5]

Clearly, today's airmen must reconsider the dogmatic approach of yesterday's airpower doctrine. Jack Snyder warned that "the destabilizing consequences of an inflexible, offensive military strategy are compounded when it is mismatched with a diplomatic strategy based on the assumption that risks can be calculated and controlled through the skillful fine-tuning of threats."[6] Changes must be made to bridge the gap between the theory of the past and the practice of the present. Richard Hallion accurately

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[3] Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine* (September 1997), 24 , emphasis added.

[4] Caroline F. Ziemke, "A New Covenant?: The Apostles of Douhet and the Persian Gulf War." In The Eagle in the Desert: Looking Back on U.S. Involvement in the Persian Gulf War. Edited by William Head and Earl H. Tilford, Jr. Westport, Conn.: Praeger, 1996, 306.

[5] Caroline F. Ziemke, "Promises Fulfilled? The Prophets of Air Power and Desert Storm," lecture, Washington Strategy Seminar titled "Air Power and the New Security Environment," Washington, D.C., January 1992, 16-19.

[6] Jack Snyder, "Civil Military Relations and the Cult of the Offensive, 1914 and 1984." *International Security* 9, no. 1 (Summer 1984): 129.

assessed that "doctrine must be realistic and, above all, flexible enough to be applied to varying circumstances."[7] The time has come for airmen to begin seriously exploring other more contemporary and politically palatable approaches to the airpower puzzle. If airpower doctrine is to remain viable in the post-Cold War era, the experience of post-Cold War conflict and the realization of the practical lessons by the Air Force's top leadership must make their way into the official service texts.

There are some specific and quite appropriate changes the Air Force should consider in order to align service doctrine with the political realities and the practical experience of modern war. First, doctrine must accept the inevitability of political restraint in limited war and the increased likelihood of gradualism in the future conflicts of the post-Cold War era. Air Force doctrine writers must reverse their apolitical tendencies and begin to prepare airmen to fight tomorrow's politically restrained wars. Quite simply, the service's one way of prosecuting air campaigns cannot be incompatible with the policy it aims to serve. Codifying the very real likelihood of severe political limitations on strategic attack and discussing alternative approaches would be two steps in the right direction.

Second, Air Force doctrine in the 21st Century must begin to elevate the importance of one such alternative—the counterland mission. Current service doctrine unabashedly prioritizes its principal warfighting responsibilities as air superiority first, then strategic attack, and, finally, counterland. The service must begin to question the appropriateness of such a hierarchy in the politically restrained, non-protracted conflicts of the post-Cold War era. More specifically, *AFDD 1* currently cites a monumental struggle between the air superiority and counterland mission:

> Air and space power is so flexible and useful, there will be many demands that it be diverted to other tasks before any measure of air and space superiority is secured. That is a false economy that ultimately costs more in long term attrition and ineffective sorties. In some situations, the weight of enemy attacks may demand maximum support to friendly surface forces. Nevertheless, attaining the required degree of air and space superiority to enable effective maximum support is an equally critical *competing* demand.[8]

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[7] Richard Hallion, ed., *Airpower Confronts an Unstable World* (Washington, D.C.: Brasseys's, 1997), 11.
[8] AFDD 1, 29, emphasis added.

There is no recognition here or elsewhere that the air component commander can efficiently concentrate his available air forces on *both* counterair and counterland as part of the same denial campaign. Because of the elevated importance of air superiority and strategic attack, doctrine seems to miss this point altogether. In fact, the real friction in current doctrine is more accurately between the two competing priorities of air superiority and strategic attack. An approach—such as the coercion hybrid—that places counterair and counterland denial before the more traditional "strategic" application of airpower resolves this tension and aligns doctrinal grammar with the political logic of the 21st Century.

Current doctrine assumes that the concept of economy of force intuitively prioritizes strategic attack over the counterland mission. In fact, the idea that attacking centers of gravity in the capital is more economical than targeting individual tanks on the battlefield is older than the Air Force itself: "If properly applied, strategic attack is the most efficient means of employing air and space power."[9] Interestingly, though, when political limitations severely dilute the synergistic and paralyzing effects of strategic bombing, counterland may become the more economical use of force.[10] In fact, the synergy of counterair and counterland as one denial effort would arguably make the approach advocated in the coercion hybrid a more efficient use of limited resources than the ambivalent priorities in Air Force doctrine as currently written.[11] The theoretical

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[9] AFDD 1, 52.

[10] Parenthetically, it is interesting to note that the coercion hybrid is more in line with the Air Force's own "New View of Conflict" (AFDD 1, page 42) than is current Air Force doctrine. Phase One corresponds quite nicely with the halt phase, adding the important coercive ingredient of denial. The later phases allow airpower to "gain and expand the strategic initiative" as America deploys and builds-up ground forces for the ground offensive.

[11] The AFDD 1 (page 18) discussion of the principle of economy of force further illuminates this point:
"The economy of force principle calls for the rational use of force by selecting the best mix of combat power. To ensure overwhelming combat power is available, minimal combat power should be devoted to secondary objectives. At the operational level, this requires minimum effort be made towards secondary objectives that do not support the larger operational or strategic objectives . . . While this principle was well developed before the advent of air-power, it responds precisely to the greatest vulnerability of air and space power employment: the misuse or misdirection of air and space power, which can reduce its contribution even more than enemy action. Ill-defined objectives can result

priorities embodied in Air Force doctrine today, then, must be realigned to meet the needs of the post-Cold War era.

Third, in more general terms, Air Force doctrine has traditionally championed the coercive value of strategic attack but still views counterland as little more than support for the decisive ground battle. Doctrine must look beyond this outdated approach and embrace the very real *coercive* potential in the targeting of the enemy's fielded forces.

Fourth, Air Force doctrine has always embraced technology. It must recognize that the technology has not only allowed modern airpower to be effective at denial-based coercion but also equally adept in phased air campaigns. Michael Howard saw "the need for versatility, adaptability and flexibility in the Armed Services so as to absorb technological change" but required that it "must be extended to absorb political and social change as well."[12] Technology commonly precipitates great change in the tactics of airpower. Such change must also make its way into strategy and service doctrine. For Lambeth, one of the enduring lessons of post-Cold War conflict has been the effectiveness of modern aviation technology in denial-based strategies:

> American air power showed its ability to achieve strategic effects against fielded enemy ground forces through its enhanced survivability, precision, and lethality. Accordingly, it now has the wherewithal to proceed directly toward strategic goals, at least in many cases that bypass any compelling need to attack an opponent's urban-industrial assets.[13]

As such, doctrine writers in the Air Force must now recognize that the technology of modern airpower has enabled what the politics of post-Cold War conflict has required—a shift in emphasis from strategic attack to counterland.

Conclusion

Air Force doctrine still draws its roots from the interwar theories designed around what airpower could do over sixty years ago—bomb the large, fixed area targets of

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in the piecemeal application of air and space forces with the resultant loss of decisive effects."

[12] Michael Howard, "Military Science in an Age of Peace," *Journal of the United Services Institute for Defence Studies* 119 (March 1974): 6.

[13] Benjamin S. Lambeth, *The Transformation of American Airpower* (Ithaca, N. Y.: Cornell University Press, 2000), 268.

yesterday's total wars. With the benefit of modern technology, airpower is now far better at accurately attacking small, mobile targets such as fielded forces. Now that airpower *can* do both, the question turns instead to what it *should* do. Interestingly, many of the economic and civil infrastructure targets politically permissible in yesterday's total wars are politically unpalatable in today's more limited conflicts. Likewise, the technologically constrained military targets of the past are the very targets allowed by the civilian leaders of the present time.

The time is ripe for an approach to airpower better aligned with the technological capabilities and the political limitations of the aerial weapon. In the foreword to Air Force Doctrine Document 1, Air Force Chief of Staff General Michael Ryan wrote "these warfighting concepts describe the essence of air and space power and provide the airman's perspective. As airmen, we must understand these ideas, we must cultivate them and, importantly, we must debate and refine these ideas for the future."[14] The theory of coercive airpower for post-Cold War conflict may provide a template for such change.

The new approach advocated in this thesis was constructed from the existing theories of coercive airpower upon the firm foundation of America's experience in limited war. It draws its roots from both theory and practice. As a consequence, it is quite responsive to the defining attributes of conflict in the post-Cold War era. Regrettably, yesterday's Cold War concepts and total-war assumptions are largely unresponsive to today's *un*total wars. Aligning airpower theory and Air Force doctrine to the realities of the post-Cold War era will prepare tomorrow's airmen for the conflicts that likely await the United States in the 21st Century.

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[14] AFDD 1, Foreword.

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